

CIVIL SERVICES SOLUTION



UPSC MAINS 2018 GS-1

- Insecure About 2019 Examination
- Insecure About 2018 Selection
Relate, Review & Analyse
- Includes All GS Papers
- These are not just answers to be
written in the examination indeed
complete content for understanding
- Crafted By: Sumesh Chahal
: Deepak Ahuja
- Visit: 57/12 Above Kumar Book Store
Old Rajendra Nagar, New Delhi.

ONE STOP SOLUTION FOR CIVIL SERVICES



UPSC CSE MAINS – 2018

GS-1 SOLUTION

Time Allowed: 3 Hours

Maximum Marks: 250

Each Question (10 marks, 150 words)

1) Safeguarding the Indian art heritage is the need of the moment.

Answer:

❖ **Static + Current Oriented Approach:**

- India is endowed with a rich cultural heritage and attractive natural diversity. It is the result of thousands of years of intermingling of cultures, traditions, customs and each generation handing over their beliefs and traditions to the next. The continuity in civilisation has given rich heritage to India, must safeguard its very own identity.
 - a. Many languages are getting extinct with death of speaking communities. Majority of scheduled languages specified in 8th schedule, are mostly spoken by people today but other languages are on the verge of extinction.
 - b. Medical practices of Ayurveda, Unani, Siddha, Homeopathy, Yoga and Naturopathy are also not being practiced in India to the extent Allopathy. There is a notion of inferiority or trust deficit among people in using such practices and mostly we prefer western medical practices.
 - c. Indigenous knowledge systems like tribal knowledge on medicines, coastal inhabitants on weather patterns are not being utilized.
 - d. Crafts, Painting - Many has lost their relevance, only few are in practice.
 - e. More than us Western countries understand the value of “Yoga” in the development of physical, mental & spiritual wellbeing and they are practicing whereas many of Indians are not even interested.
 - f. Indian Music & Dance Forms are being influenced by westernisation. Many has been reoriented and losing their originality even majority of Indian youth prefer & practice western.
- Recently Supreme Court came down heavily on the Archaeological Survey of India for its failure to take appropriate steps to protect and preserve the iconic symbol of Indian Art Heritage - “Taj Mahal”.
 - Issue: The ASI protects 3,677 monuments and has copied more than 74,000 inscriptions. It has shaped the discipline of archaeology, history and heritage conservation in the country through these significant contributions.

- However, it's Plagued by funds crunch as art and culture received only a meagre 0.16 percent of the total Central Plan of the government as a result, the Ministry of Culture, which the ASI is a part of, received only a fraction of what it needed.

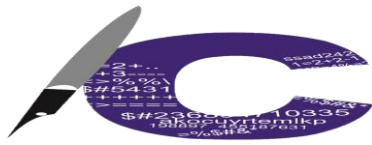
WAY FORWARD:

- Steps like including AYUSH in a ministry for its promotion & safeguard. Further institutions for language research and printing of books for education in regional languages will do greater benefit for promoting languages.
- Bringing rationality to the practices in promoting within country. Indigenous knowledge can be documented and promoted. It is commitment on part of the Govt and responsibility on part of citizens that will be the driving factor for Indian rich heritage and in becoming the vanguard for cultural diversity of the world.

❖ Current Oriented Approach:

WHY IT'S NEED OF THE MOMENT?

- i. India's three major natural World Heritage Sites - the Western Ghats, Sundarbans National Park and Manas Wildlife Sanctuary, are facing threats from harmful industrial activities like mining, according to a latest survey by World Wildlife Fund (WWF).
 - ii. Activities such as mining, illegal logging, oil and gas exploration threaten 114 out of 229 natural World Heritage sites, including Sundarbans known for iconic Royal Bengal tiger, Western Ghats, one of the top biodiversity hotspots in the world, and the Manas Sanctuary in Assam, home to many endangered species including Indian rhinoceros.
 - iii. While ecology of Western Ghats covering six states which includes Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala, is threatened by mining and oil & gas exploration. Manas Wild Life Sanctuary faces threat from dams and unsustainable water use.
 - iv. Sundarbans in West Bengal and neighbouring Bangladesh have been hit by various activities including unsustainable water use, dams, wood harvesting, over-fishing and shipping lanes.
- In 1972, UNESCO adopted a resolution for the creation a Convention on protection of the world natural and cultural heritages. Such sites are also protected by all governments irrespective of war and conflict.



- Two-thirds of natural sites on the UNESCO World Heritage List are crucial sources of water and about half help prevent natural disasters such as floods or landslides, according to IUCN's 2014 report, 'The Benefits of Natural World Heritage'.
- Reiterating these findings, WWF survey estimates that "11 million people - more than the population of Portugal - depend directly on World Heritage sites for food, water, shelter and medicine. Harmful industrial development poses a threat to these ecosystem services and communities that depend on them. These sites have a crucial role in supporting human well-being and sustainable development.

WAY FORWARD:

- Apni Darohar Apni Pehchan Project: A collaborative effort among the tourism ministry, culture ministry, Archaeological Survey of India (ASI) & States.
- It aims to involve companies to take up the responsibility for making our heritage and tourism more sustainable through development, operation, and maintenance of world class tourist infrastructure and amenities at ASI/state heritage sites and other important tourist sites in India
- The National Heritage City Development and Augmentation Yojana (HRIDAY) 2015 – It aims to preserve and revitalize the soul and unique character of the heritage cities in the country.
- Think & Suggest: How it can be safeguarded or protected better?
Monument Mitra????

2) Assess the importance of the accounts of the Chinese and Arab travellers in the reconstruction of the history of India.

Answer:

❖ CHINESE TRAVELLERS:

- i. **Xuanzang or Hiuen Tsang:** He was a Chinese Buddhist monk, scholar, traveller, and translator who travelled to India in the seventh century and described the interaction between Chinese Buddhism and Indian Buddhism during the early Tang dynasty.
 - He was known for recording the events of the reign of the northern Indian emperor, The 7th century Indian emperor – Harshvardhan or Harsha. In 646, under the Emperor's request, Xuanzang completed his book “Great Tang Autobiography and biography Records on the Western Regions”, which has become one of the primary sources for the study of medieval Central Asia and India.
 - Xuanzang's work, the Great Tang Records on the Western Regions, is the longest and most detailed account of the countries of Central and South Asia. He has preserved the records of political and social aspects of the lands he visited. Which have been very helpful in the recording of the archaeological history of Bengal.
 - Xuanzang also wrote about the Fourth Buddhist council that held under the order of King Kanishka of Kushana. He also visited Chiniot and Lahore as well and provided the earliest writings available on the ancient cities.
 - At the invitation of Hindu king Kumar Bhaskar Varman, he went east to the ancient city of Pragjyotishpura in the kingdom of Kamarupa.

- Before going to Kamarupa, he visited Sylhet what is now a modern city Of Bangladesh. He gives detailed account about culture and people of Sylhet.
- Later, the king escorted Xuanzang back to the Harshavardhana, who was an ally of Kumar Bhaskar Varman, to attend a great Buddhist Assembly there which was attended by both of the kings as well as several other kings from neighbouring kingdoms, buddhist monks, Brahmans and Jains. King Harsha invited Xuanjang to Kumbh Mela in Prayag where he witnessed king Harsha's generous distribution of gifts to the poor. He further told that how families were not registered and there was no forced labour. According to Hiuen Tang, King Harshvardhana had an efficient government.



Hiuen Tsang & His Memorial In Nalanda, Bihar

- On his return to China in AD 645, Xuanzang was greeted with much honor but he refused all high civil appointments offered by the Emperor Taizong of Tang. Instead, he retired to a monastery and devoted his energy in Return to China translating Buddhist texts until his death in AD 664.
- ii. I-Ching or Yijing Later I-Tsing:** Post Harsha Period, 8th Century AD. I-Ching was a Chinese Buddhist pilgrim and was the first Buddhist monk to take a sea route to India. He studied at Nalanda for many years and took huge volumes of Buddhist writings when he returned.

- The written records of his 25-year travels contributed to the world knowledge of the ancient kingdom of Srivijaya, as well as providing information about the other kingdoms lying on the route between China and the Nalanda Buddhist university in India. Later In some 19th-century publications, I-Ching or **Yijing's** name has been appeared as **I-Tsing!**

❖ **ARAB TRAVELLERS:**

- Al-Beruni:** He is regarded as one of the greatest scholars of the medieval Islamic era and was well versed in physics, mathematics, astronomy and natural sciences.
 - In 1017 he travelled to South Asia and authored a study of Indian culture after exploring the Hinduism practised in India. He was given the title "founder of Indology".
 - He was an impartial writer on customs and creeds of various nations and was given the title Al-Ustadh ("The Master") for his remarkable description of early 11th century India.
 - He was a scholar during Mahmud of Ghazni during 1000 AD. Al-Biruni wrote about the peoples, customs and religions of the Indian subcontinent. During his journey through India, military and political histories were not of Al-Biruni's main focus. Instead, he decided to document the more civilian and scholarly areas of Hindu life such as culture, science, and religion.
 - Additionally, he chronicled stories of Indian rulers and told of how they ruled over their people with their beneficial actions and acted in the interests of the nation.
 - His biggest work was Kitab Ul Hind or Tehqiq-i-Hind. Kitab-ul-Hind, written in Arabic, is divided into 80 chapters on subjects such as religion and philosophy, festivals, astronomy, alchemy, manners etc.
 - He wanted to understand Indian philosophical, religious and scientific thought. He analyzed everything that came across him in a critical and scientific manner and presented his analysis in an unbiased manner.
 - He referred to the original works of Varahmihira, Aryabhatta, Brahmagupta, Patanjali as well as Bhagwad Gita, Vishnu Purana, Vaayu Purana in Sanskrit (for which he himself learned Sanskrit) to have a first-hand account of Indian society. He describes Indian society, culture, festivals, dress, food, entertainment, scientific thought, philosophical thought etc. in great detail.
 - He describes the weights and measures used in India, distances, geographical features, alphabet etc. prevailing in India. He also mentions the caste system and other social institutions that were prevalent at that time.

- He tells us that Buddhism was not to be seen anywhere and he had only heard about it. He tells us about the influence of Bhakti by recognizing a firm monotheism in Northern India.
 - He openly criticized the Hindus on like their deficiencies in curiosity about history and religion. He expresses regret that Indians had abandoned the scientific outlook of their ancestors and had relapsed into stagnation in mind and in thought. Instead of keeping their minds open and learning from others as their ancestors did they now relied only on traditions.
 - A film about his life, Abu Raykhan Beruni, was released in the Soviet Union in 1974.
 - His Work “ALBERUNI'S INDIA” of A.D 1030 has been republished many times all over the world. Some recent in 1994-95-96, 2001, Re-Reading Al-Biruni's India 2005.
 - He documented different bodies of water and other natural phenomena. These descriptions are useful to today's modern historians because they are able to locate certain destinations in modern-day India. Different forts and landmarks were able to be located, legitimizing Al-Biruni's contributions with their usefulness to even modern history and archaeology.
- ii. Al-Masudi:** He was an Arab historian and Geographer & was first to combine history and scientific geography in a large-scale work. He travelled to the Indus Valley, and other parts of India, especially the western Coast. He also sailed on the Indian Ocean, the Red Sea, the Mediterranean and the Caspian too.
- He demonstrates a deep understanding of historical change, tracing current conditions to the unfolding of events over generations and centuries of India. He perceived the significance of interstate relations and of the interaction of Muslims and Hindus in the various states of the subcontinent.
- iii. Ibn Battuta:** He is known as one of the greatest travellers of all time & also as the “World's First Tourist” of Medieval Era. As Over a period of thirty years, he visited most of parts of the world including North Africa, the Horn of Africa, West Africa, the Middle East, Central Asia, Southeast Asia, South Asia and China.
- He decided to seek employment with the Muslim Sultan of Delhi, Muhammad bin Tughluq. With the intention of taking an overland route to India, He crossed the Red Sea and the Eastern Desert and journeyed several places and finally from Afghanistan he crossed into India via the mountain passes of the Hindu Kush.
 - He described the mountain of Hindu Kush & the history of the range in slave trading. He also visited Hansi - Haryana, and describes it as among the most beautiful cities, the best constructed and the most populated; it is surrounded with a strong wall, and its founder is said to be one of the great infidel kings - Tara.

- Upon his arrival in Sindh, Ibn Battuta mentions the Indian rhinoceros that lived on the banks of the Indus. From there He made his way to Delhi and became acquainted with the sultan, Muhammad bin Tughluq. He served as a Qadi or Judge for six years during Muhammad bin Tughluq's reign.
- However, he mentioned that it was difficult to enforce Islamic law beyond the sultan's court in Delhi, due to lack of Islamic appeal in India.
- His work “Rihla” (Means Journey or Travels) provides a picture of medieval civilizations which is still widely consulted today.

3) Throw light on the significance of the thoughts of Mahatma Gandhi in the present times.

Answer:

- ❖ Thoughts given by Mahatma Gandhi carries great significance in all spheres of life be it personal, professional or public - Explain by giving some examples!



- **“First, They Ignore You, Then They Ridicule You, Then They Fight You, and Then You Win”:** In Personal life or Public administration there will be times when several malpractices are operating. – Authority May Ignore you, Ridicule or Disapprove you, Pressurize You. One can draw an attention into such malpractices through RTI, PILs or Digital Media then People & System together will fight with you and at the you will win. - Such Example if Any!

Seven Sins: 1. Wealth Without Work 2. Pleasure Without Conscience 3. Knowledge Without Character 4. Commerce (Business) Without Morality (Ethics) 5. Science Without Humanity 6. Religion Without Sacrifice 7. Politics Without Principle



- **Respect of Time and Leadership:** “Be Quick, Be Brief, Be Gone!”
Personal meetings with Mahatma Gandhi were very short. However, He made people feel as if they were the only person in the world that Gandhi would have liked to talk at that time. - In an Administration one has to follow such principle to ensure better efficiency & also to reconcile the problems of everyone.
- **Ends Don't Justify The Means:** Non-Cooperation was one of the key political movements launched by Mahatma Gandhi. Still he aborted the movement saying that a key tenet of the movement was non-violence which was violated. He strongly believed that the end did not justify the means. - In today's time also if one doesn't look at the means and to achieve something or to quickly end the work, if someone misuses his/her authority will bound to create consequences. - Such Example if Any!

4) Why is Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation?

Answer:

- Indian Regional Navigation Satellite System or NAVIC is a cluster of satellites which will work as a localized GPS system and will greatly reduce Indian dependency on foreign GPS systems. Such system is important for having a secured navigation especially in case of security and strategic issues. It has currently 7 satellites which can be expanded if India wants to expand the range of the system.



PROVIDES INDIA WITH ASSURED NAVIGATION SERVICE FOR VITAL CIVILIAN & MILITARY APPLICATIONS WITHOUT HAVING TO DEPEND ON ANOTHER COUNTRY; FIRST SATELLITE TO BE LAUNCHED ON JULY 1; REMAINING 6 BY 2015

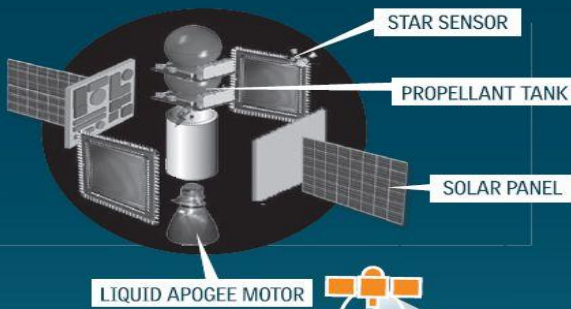
IRNSS: INDIAN REGIONAL NAVIGATION SATELLITE SYSTEM

7
SATELLITES

3 GEOSTATIONARY
4 GEOSYNCHRONOUS

ORBIT ALTITUDE **36,000** KM

COST **₹1,420** CRORES



Covers India and up to **1,500** km beyond its borders

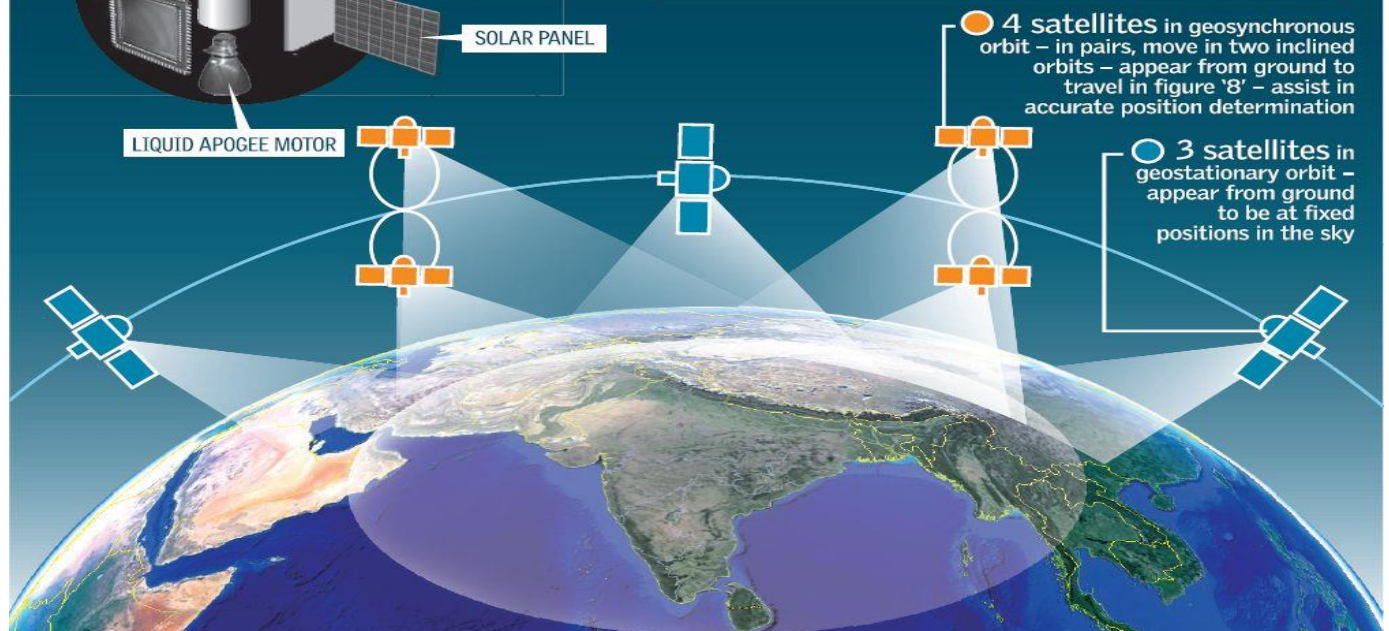
3 extremely accurate rubidium atomic clocks in each satellite

GPS receivers will not work; need special receivers (yet to be developed)

IRNSS provides Standard Positioning Service

Open to all users

Accuracy better than 20 metres



#TransformingIndia

NAVIC - India's own GPS

Example of #MakeInIndia, 'Made in India' & 'Made for Indians'



7 satellites complete the Indian Regional Navigation Satellite System (IRNSS)

Provides accurate real-time positioning and timing services

Benefits fishermen, farmers, and all other people of entire India & SAARC region

Benefits

- Terrestrial, Aerial and Marine Navigation
- Disaster Management
- Vehicle tracking and fleet management
- Integration with mobile phones
- Precise Timing
- Visual and voice navigation for drivers
- Mapping and Geodetic data capture
- Terrestrial navigation aid for hikers and travellers



- The navigation signals themselves would be transmitted in the S-band frequency (2-4 GHz) and broadcast through a phased array antenna to maintain required coverage and signal strength.
- A messaging interface is embedded in the IRNSS or NavIC system. This feature allows the command centre to send warnings to a specific geographic area. For example, fishermen using the system can be warned about a cyclone.
- However, ISRO declared the IRNSS-1H launch as a failure after a heat shield failed to separate, preventing the satellite from being deployed in space by PSLV-C39, the launch vehicle.
- IRNSS-1I was put in orbit by the Indian Space Research Organisation's (ISRO) in Apr 2018 to replace failed IRNSS-1A & to complete the constellation of IRNSS-1H.

5) Why is India taking keen interest in resources of Arctic Region?

Answer:

- The US Geological Survey has estimated that nearly one quarter of the earth's undiscovered, recoverable petroleum resources lie in the Arctic Region: 13% of the oil; 30% of the natural gas and 20% of the liquefied natural gas. More than 80 percent of these are expected to be offshore.
- Arctic ice has been melting mainly due to global warming and as per predictions by 2040 entire ice cover would be melted. This raised for countries to look for resources in the region to serve commercial interests.
- It consists of the Arctic Ocean, adjacent seas, and parts of Alaska, Finland, Greenland (Denmark), Iceland, Northern Canada, Norway, Russia and Sweden.





A NEW ENERGY FRONT

With the Arctic ice melting, the region's abundant oil, gas and mineral deposits have become accessible and have shortened the shipping routes, setting off a global race for influence and economic opportunities far beyond the nations that border the Arctic



THE ARCTIC CIRCLE ENCLOSES



21^{mn}
sq.km of land



13^{mn}
sq.km of mostly
ice-bound seas

OFFICIALS ESTIMATES THE ARCTIC HOLDS



13%
of the world's
undiscovered oil
reserves



30%
of undiscovered
gas deposits

THE ARCTIC COUNCIL INCLUDES EIGHT NATIONS:

Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States

NEW OBSERVERS ADDED BY THE KIRUNA COUNCIL:

China, India, Italy, Japan, Republic of Korea and Singapore

Already six European countries are permanent observers

They will not be able to directly raise issues but will have to bring them forward through one of the eight core members

- India's interests in the Arctic region are scientific, environmental, commercial as well as strategic.
- No country owns the geographic North Pole or the region of the Arctic Ocean surrounding it. The surrounding six Arctic states that border the Arctic Ocean - Canada, Greenland (Denmark), Iceland, Norway, Russia, and the United States - have limited access to 200 nautical miles (370 km; 230 mi) exclusive economic zone (EEZ) off their coasts.

- Exploration of energy fuels serves energy security for world: Finding new mineral sites and exploration of minerals are necessary steps – helping resource scarcity.
- Region provides huge fisheries and other marine resources.
- Arctic melt mainly provides for short transportation route between developed countries and hence saves fuel and time.
- The releases of new lands as a result of melting of ice will lead to development of the agriculture in the region.
- South Korea is important for India in this regard:
 - As it is emerging as the next hub for oil storage by planning to add tanks for storing millions of barrels of crude and refined products by 2020.
 - Potential tariff concessions on Arctic oil (storage or transport) could help India immensely in the next 10-15 years.
- However, there are concerns like of environment: Once these materials are being explored it leads to trapped CO_2 and CBM to escape from ice and could cause more global warming.
- Exploration of marine resources would impact marine ecology as it is one of pristine regions in the world Many wild life species like polar bears would be extinct once exploration starts.
- Once transportation linkages are established and with increase in human activity leads to complete melt which could significantly impact sea levels across which could have impact on low lying countries
- If there is possible threat or damage to Environment & Marine Ecology, Countries should better Focus on available & alternate possible mode of resources.

6) Define mantle plume and explain its role in plate tectonics.

Answer:

- A mantle plume is an upwelling of a hot rock within the Earth's mantle. A mantle plume is posited to exist where hot rock nucleates at the core-mantle boundary and rises through the Earth's mantle becoming a diapir in the Earth's crust.
- When a plume head encounters the base of the lithosphere, it is expected to flatten out against this barrier and to undergo widespread decompression melting to form large volumes of basalt magma. It may then erupt onto the surface.
- They are often invoked as the cause of volcanic hotspots, such as Hawaii or Iceland, and large igneous provinces such as the Deccan and Siberian traps.
(As heads of mantle plumes can partly melt when they reach shallow depths.)



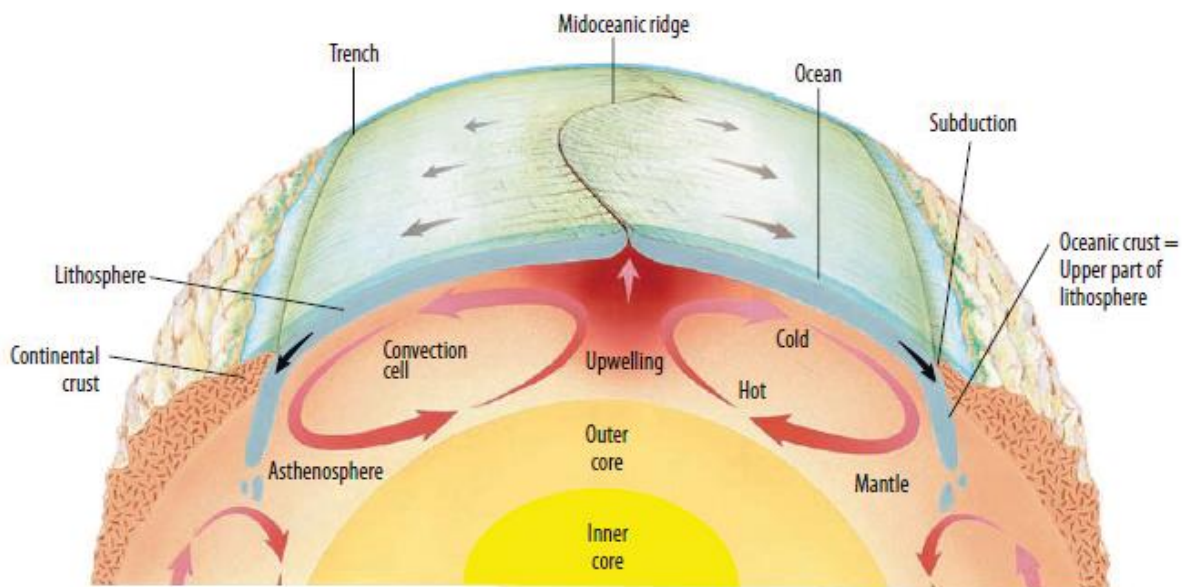
-
- INTERACTION OF MOBILE BELT
WITH PLUMES NEAR RIFTED
MARGINS AND CHANNELLING
- 0 500 1000 Km.
- INDEX
- | | | |
|-------|----------------------------|-------------------|
| Cz | CROZET | } CRATONIC PLUMES |
| Kg | KERGUELEN | |
| M | MARION | |
| Ru | REUNION | |
| BCN | BUNDELKHAND | |
| BBCN | BASTAR-BHANDARA | |
| SBCN | SINGHBHUM | |
| WDCN | WESTERN DHARWAR | |
| SGT | SOUTHERN GRANULITE TERRAIN | |
| ----- | | MOBILE BELT |
- Fig.13**

I N D E X	
Cz	CROZET
Kg	KERGUELEN
M	MARION
Ru	REUNION
BCN	BUNDELKHAND
BBCN	BASTAR-BHANDARA
SBCN	SINGHBHUM
WDCN	WESTERN DHARWAR
SGT	SOUTHERN GRANULITE
	TERRAIN
	MOBILE BELT

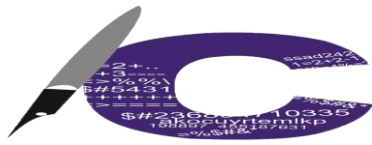
❖ ROLE IN PLATE TECTONICS:

- The narrow vertical pipe, or conduit, postulated to connect the plume head to the core-mantle boundary, is viewed as providing a continuous supply of magma to a fixed location, often referred to as a "hotspot".
- As the overlying tectonic plate (lithosphere) moves over this hotspot, the eruption of magma from the fixed conduit onto the surface is expected to form a chain of volcanoes that parallels plate motion. The Hawaiian Islands chain in the Pacific Ocean is the best example.
- Some such volcanic regions lie far from tectonic plate boundaries, while others represent unusually large-volume volcanism near plate boundaries or in large igneous provinces.

❖ KEY FACTS FOR UNDERSTANDING:



- When plates/structure exert pressure on each other, at one point this becomes critical and plates move releasing energy which takes shape of an earthquake. This energy release takes the form of seismic waves.
- Seafloor spreading is a process that occurs at mid-ocean ridges, where new oceanic crust is formed through volcanic activity and then gradually moves away from the ridge. Seafloor spreading helps explain continental drift in the theory of plate tectonics.
- All Natural Earthquakes (there can be other non-natural like due to Reservoirs for dams, mines collapse...) take place in the lithosphere (upto 200km and it consists of Crust and Upper most layer of mantle) and are mainly caused by activities in the Tectonic plates.



7) What are the consequences of spreading of “Dead Zones” on marine ecosystem?

Answer:

- Dead zones are water bodies that do not have sufficient oxygen levels in order to support most marine life. They are caused by "excessive nutrient pollution from human activities coupled with other factors that deplete the oxygen required to support most marine life in bottom and near-bottom water".
- Generally, it occurs near inhabited coastlines, where aquatic life is most concentrated. The size & number of marine dead zones have grown explosively in the half-century.

Ocean 'dead zones'

A new global study of Earth's oceans shows a marked increase in the number of "dead zones" – areas of seafloor with too little oxygen to sustain most marine life.

WHY DEAD ZONES OCCUR

1 Pollutants from the burning of fossil fuels rise into the atmosphere and fall back to Earth as rain

Farms use fertilizers, which eventually find their way into the sea

2 Excess nutrients from farm fertilizers and burning fossil fuels – primarily nitrogen and phosphorus – cause a rapid growth of algae in coastal waters

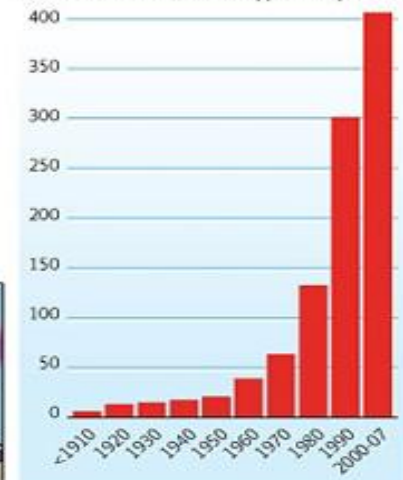
3 When the microscopic algae dies it falls to the ocean floor where it provides a rich food source for bacteria

4 The act of decomposition consumes dissolved oxygen from the surrounding waters, rendering them unable to sustain life

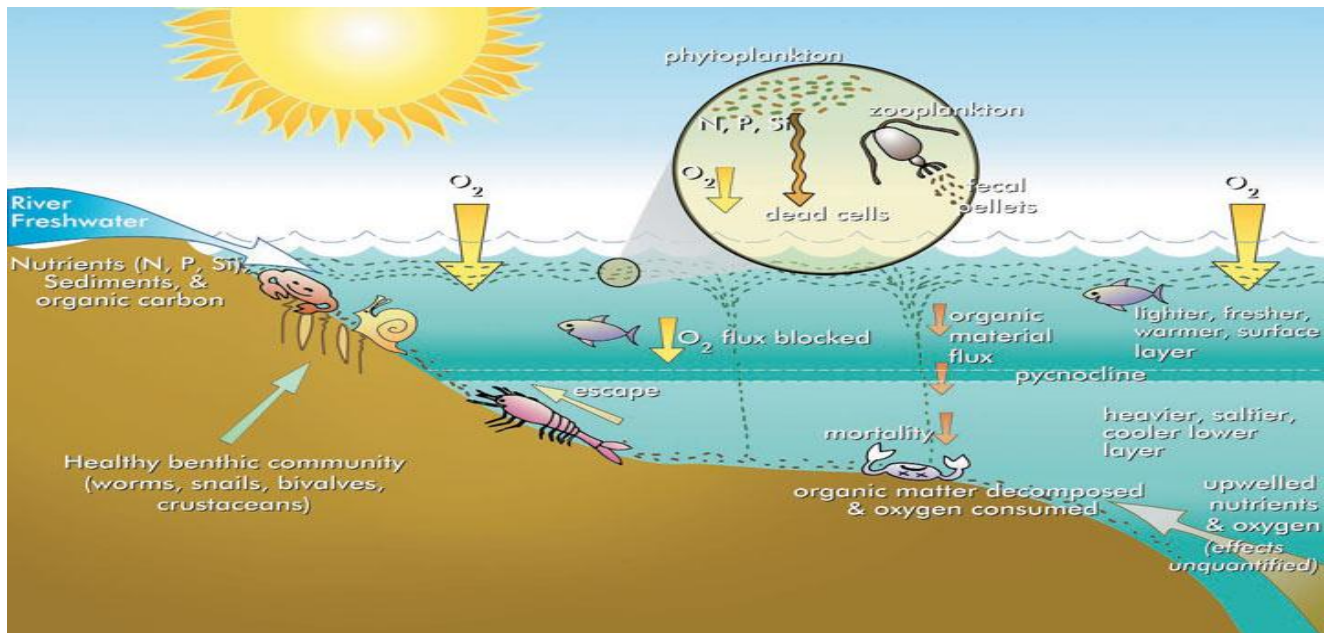
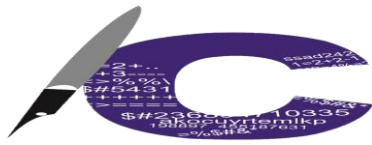


RAPID RISE IN DEAD ZONES

Cumulative number of hypoxic systems



- It is because of process called eutrophication, where oxygen levels decrease as elements such nitrogen and phosphorus increase. As nitrogen increases, algae produce large amounts of oxygen, but die from increased nitrogen. Decomposers then use all of the remaining oxygen decomposing the algae, resulting in no oxygen left and no oxygen being produced.



- Dead zones are caused by oxygen-depleting factors which are not limited to human pollution as it can be caused by natural and anthropogenic factors also.
- Natural causes include coastal upwelling and changes in wind and water circulation patterns. Natural oceanographic phenomena can cause deoxygenation of parts of the water column. For example, enclosed bodies of water, such as fjords or the Black Sea, have shallow sills at their entrances, causing water to be stagnant there for a long time.
- In the Pacific Ocean and northern Indian Ocean have lowered oxygen concentrations which are thought to be in regions where there is minimal circulation to replace the oxygen that is consumed - known as oxygen minimum zones.
- Manmade causes include Runoff from sewage, urban land use, fertilizers and changes in ocean circulation triggered by ongoing climate change. The use of chemical fertilizers is considered as the major cause of dead zones around the world.
- It might be expected that fish would flee the potential suffocation, but they are often quickly rendered unconscious and doomed. Slow moving bottom-dwelling creatures like clams, lobsters, oysters are unable to escape.
- The continuous changes in oxygen could affect most marine ecosystems and have socio-economic ramifications due to human dependency on marine goods & Services.



8) “Caste system is assuming new identities and associational forms. Hence, caste system cannot be eradicated in India.” Comment.

Answer:

- India's urban modernity has largely been the economic and technical modernity with economic opportunities it has brought together diverse people together in work places, public transport etc. However, this co-existence is only economically driven mostly.
- For example, an upper caste person will do business with a lower caste person, But may not dine with him. - New identities and Associational forms!
That is at social level, the modernity of a similar scale is yet to be achieved.

❖ **REASONS:**

- 1) Economic modernity alone can't end the caste system which is so deeply rooted in our culture. It needs to be complemented by social and political modernity which will surely help to eradicate the caste system.
- 2) Endogamy or Same caste marriages - Despite spread in education and awareness, marriages are still based on caste identities. This perpetuates the caste hierarchies.
- 3) Limited occupational mobility - caste-based occupations are being pursued generations after generations, which does not help in blurring the caste lines.
- 4) Concentration of means of production and wealth - It has been observed that the wealth and job creation is still mostly in hands of people from upper/dominant castes.
- 5) Social Discrimination: - In urban cities we could see the hostels based on caste system where only students belonging to that particular caste have eligibility.
- 6) Lack of awareness among lower castes about their rights - less awareness about constitutional safeguards and legal provisions in the lower castes has resulted in the perpetual dis-empowerment of these sections.

❖ **HOW IT CAN BE ERADICATED?**

- Awareness about Constitutional values, ethics, ill effects of casteism!
- Emotional and intellectual appeal to economic determinism, as was advocated by Karl Marx. This could counter casteism amongst the poor people who live in villages, small towns and have aspirations of economic mobility for their children.
- Evaluate the existing customs, rituals based on the touchstone of Human Rights. Here judiciary can play a positive role but with due respect to religious feelings.
- Promote and incentivise inter caste marriages as being done in some parts of India.
- Dalit Capitalism: Check on extra judicial bodies like Khap Panchayats.



- The discrimination based on caste and race can be minimised by enactment and enforcement of equal opportunity and non-discrimination legislation, Promoting social harmony and imbibing attitude of tolerance and accommodation through liberal education.
- Although Discrimination is widely prevalent, but efforts in the education, political empowerment, economic compulsion and the desire of youngsters to go beyond caste and religion are the factors which will slowly and surely make India equal.
- The election of Ramnath Kovindji, the second person from a Scheduled Caste to be elected President of India, could have been considered as a huge step towards establishing a polity that is free from the tyranny of the caste system.



India's Caste SYSTEM

Rigidly classifying humanity, the caste system has pre-modern origins in **Hindu scripture**, but it was the British who shaped it to divide and rule India. Officially, India outlawed caste discrimination in the **1950** constitution, **however it remains prevalent.**

Caste	Originally	Today
Brahmana	Priests, poets, teachers, scholars	Dominate science, business and government Many work as chefs because food they produce can be consumed by anyone
Kshatriya	Rulers, warriors, administrators	Mostly landowning class with less power
Vaishya	Cattle herders, agriculturalists, artisans and merchants	Form a large part of the Indian middle-class
Shudra	Workers	Government regards the Shudra as a 'scheduled caste' alongside the Untouchables, meaning they are historically disadvantaged
Untouchables	People outside the caste system	Many untouchables still labour in menial jobs, face coercion and violence

Source(s): Prospect, University of California, New World Encyclopedia, The Economist, Human Rights Watch, The Hindu, The International Business Times

9) “Despite implementation of various programmes for eradication of poverty by the government in India, poverty is still existing”. Explain by giving reasons.

Answer:

- The Twenty Point Programme (TPP) initiated in 1975 was restructured in the years 1982, 1986 and 2006. The thrust of the Programme restructured in 2006 is to eradicate poverty and improve the quality of life of the poor and the under-privileged people all over the country.
- It covers various socio-economic aspects like poverty, employment, education, housing, agriculture, drinking water, afforestation and environment protection, energy to rural areas, welfare of weaker sections of the society, etc.
- It originally contained 20 points and 66 items monitored individually by different central nodal ministries concerned. One of the 66 items viz. “Sampoorna Grameen Rojgar Yojana (SGRY)” has since been subsumed into another item namely “National Rural Employment Guarantee Act” from 2008 and has been renamed as Mahatma Gandhi National Rural Employment Generation Act since 2009. Out of the remaining 65 items, 19 items are now being monitored on quarterly basis.
- Three major programmes that aim at improving the food and nutritional status of the poor are Public Distribution System, Integrated Child Development Scheme and Midday Meal Scheme.

WHY POVERTY IS STILL ALIVE?

- Unequal Industrialization: Industries provide employment opportunities to the locals of the place. Concentration of industries in any few states has deprived areas and face acute poverty.
- Flooding: Natural calamities like floods can destroy farmlands and adversely affect the agricultural produce and is one of the reasons for high incidence for poverty in pockets of Eastern India at places like Assam, West Bengal and Bihar.
- Drought: Another climatic adversity that causes poverty is Long spells of drought. It harms farmlands and the overall agricultural output. Droughts are a permanent cause of poverty in some of the regions of India such as Rajasthan and Karnataka.
- Selective fertility: the fertility of soil is not the same in every region of a country and varies from place to place. While the fertile areas have blessed agricultural produce, the unfertile lands are pushed towards poverty naturally.
- Inequality in terms of access to schooling/education and health leads to perpetual poverty and dis-empowerment of the disadvantaged sections.

- Transparency and accountability: It have been missing from our public policies hence failing targeted delivery and implementation.
- Inequality in distribution of resources: India has uneven concentration of wealth and resources. According to a survey conducted by Oxfam the richest 1% in India cornered 73% of the wealth generated in the country.

ARE GOVERNMENT SCHEMES WORKING?

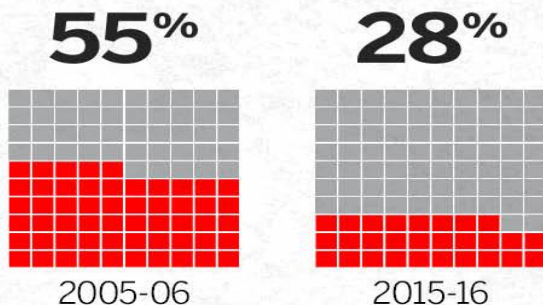
Poverty rate in India has nearly halved but it still has world's largest poor population

INDIA'S POOR

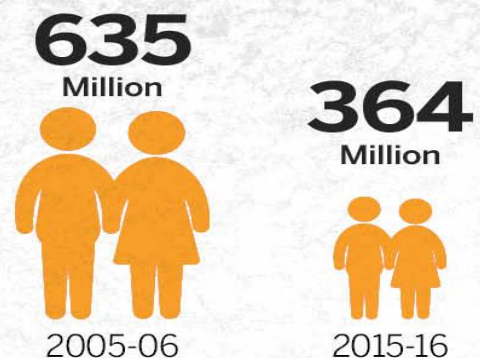


POVERTY RATE

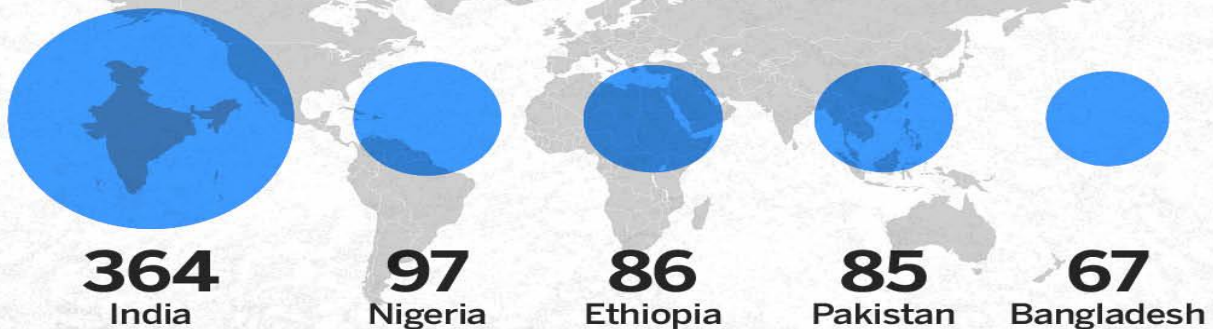
(Share of poor in total population)



PEOPLE IN POVERTY



COUNTRIES WITH WORLD'S LARGEST POOR POPULATION (in million)



Source: Global Multidimensional Poverty Index 2018 ; Multidimensional poverty index uses factors such as inadequate living standard, poor health, lack of education etc. to determine poverty

NEWS18 creative

- India's Multidimensional Poverty has dropped significantly between 2005-06 to 2015-16, largely because of the performance of five key southern States. The Poverty level has come down from 55% to 21%, improving MDP.
- The State of Bihar has minimum fall rate, 3.4 points per annum and with maximum poverty of 43%. Jharkhand (36%), Uttar Pradesh (31%), Rajasthan (31%), Odisha (29%), Madhya Pradesh (28%), Assam (25%).
- The national average of poverty is (21%), the key southern States performed exceedingly well. Kerala has MDP of (1%), Tamil Nadu (6%), Karnataka (11%), Andhra Pradesh (13%) & Telangana (14%) significantly low than national average.
- Even, Chhattisgarh, which is affected by Left Wing insurgency has done well, bringing down its poverty level from (71% to 22%). - As per "Estimates of Multidimensional Poverty of India": National Family Health Survey-4 of 2015-2016.
- Following the drop-in poverty levels, India moved to the 26th rank from its earlier 54, in a decade, among 102 developing countries with MDP. (MDP is "an international measure of acute poverty" based on three key categories which includes health, education and living standards.)
- The Rangarajan Committee said in 2014 that the population below the poverty line in 2011-2012 was 363 million (29.5% of the population). In 2015, around 170 million people or 12.4% was living in the poverty (defined as \$1.90 - 123.5rs), a reduction of 17.1% from 2011-12's estimates of 29.5%. (As per estimates of The Planning Commission of India in the year of 2000, the poverty rate in India was 39%.)
- The World Bank's Global Monitoring Report for 2014-15 on the Millennium Development Goals says India has been the biggest contributor to poverty reduction between 2008 and 2011, with around 140 million or so lifted out of absolute poverty.



- But still we have large number of people who are not getting even two-time meals a day, hence it would be better to learn from the past and keep improving The Poverty alleviation programmes aided by efficient and better delivery of services.

10) How the Indian concept of secularism is different from the western model of secularism? Discuss.

Answer:

- Secularism as a concept opposes all forms of inter- religious domination or discrimination by individual or a community on account of their religious identity. Secularism respects the religious beliefs and therefore it is not anti-religious concept.
- It promotes freedom within religions and promotes equality between, as well as within religions.

❖ WESTERN MODEL OF SECULARISM:

- State and religion has a separate sphere of its own, with independent jurisdiction i.e. Mutual exclusion of state and religion, principled distance of state from religion and no illegitimate intrusion of religion in the state.
- The state cannot aid any religious institutions. State cannot hinder the activities of religious communities as long as they are within the broad limits setup by the law of the land.
- For example – if religious women forbid a woman from becoming a priest, then the states cannot do anything. Like this, if a particular religion forbids the entry of some of its members in the sanctum of its temple, then the states has no option but to let the matter rest exactly where it is.
- So here the religion is private matter, not a matter of state policy or law. This model interprets freedom and equality in an individualist manner.
- On the other hand, drawbacks of this model can be seen as, such states focus on intra-religious domination by strict separation of state from church to realise among other things individual freedoms, issues of inter-religious (and therefore minority rights) equality are often neglected. This model leaves no scope for the idea of the state supported religious reforms.

❖ INDIAN MODEL OF SECULARISM:

- The conceptual construction of secularism was adopted by India considering its plural society & the problems, posed by fundamentalism and communalism.
- Pt. Jawaharlal Nehru's view on secularism model was - "Equal protection by the state to all religion". He wanted a secular state to be one that "protects all religions but does not favour one at the expense of others and does not itself adopt any religion as the state religion."

- Indian Secularism deals not only with religious freedom of individuals but also with religious freedom of minority communities i.e. individual has the right to profess religion of his /her choice.
- Indian Secularism equally opposed oppression of Dalits and women within Hinduism. It also opposes the discrimination against women within Indian Islam or Christianity and the possible threats that a majority community might pose to the rights of the minority religious communities.
- Likewise, religious minority also have a right to exist and to maintain their own culture and educational institutions. Indian Secularism has made room for and is compatible with the idea of state- supported religious reform.
- For example- Indian constitution bans untouchability under Article 17. There is also abolition of child marriage and legal support for inter-caste marriages.
- The Indian state may engage with religion negatively to oppose religious tyranny. It may also choose a positive mode of engagement. Thus, the Indian constitution grants all religious minorities, the rights to establish and maintain their own educational institutions, which may receive assistance from the state in India, it is not mutual exclusion, rather it is principled distance, a complex idea that allows state to be distant from all religions so that it can intervene or abstain from interference, depending upon which of these two would better promote Liberty, equality and social justice.
- Although all secular states have one thing in common, they are neither theocratic nor do they establish a religion. At the end Secularisation should be the process of social change through which the influence of religion declines in public affairs.
- India believes in “Sarva Dhrama Sama Bhava” feeling, which reflects its plural society with secular state which is totally different than the secular concept of western society.



Each Question (15 marks, 250 words)

11) The Bhakti Movement received a remarkable re-orientation with the advent of Sri Chaitanya Mahaprabhu. Discuss.

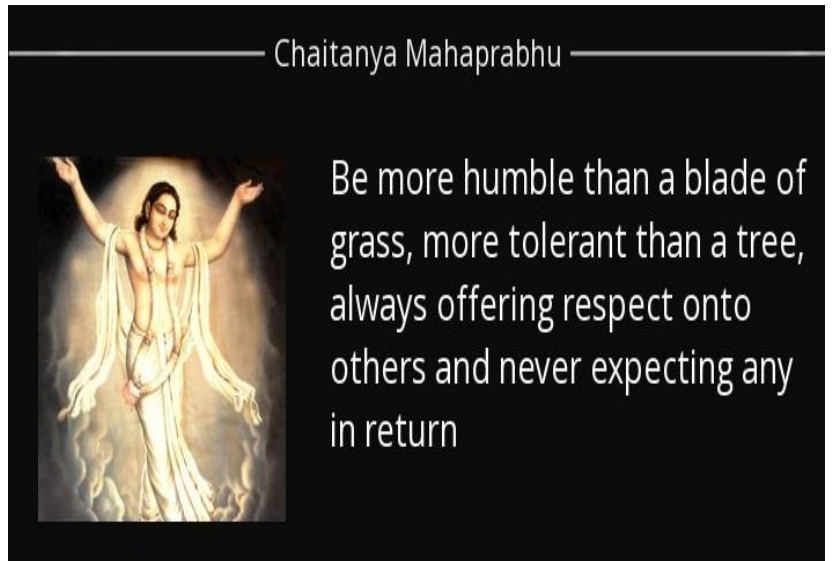
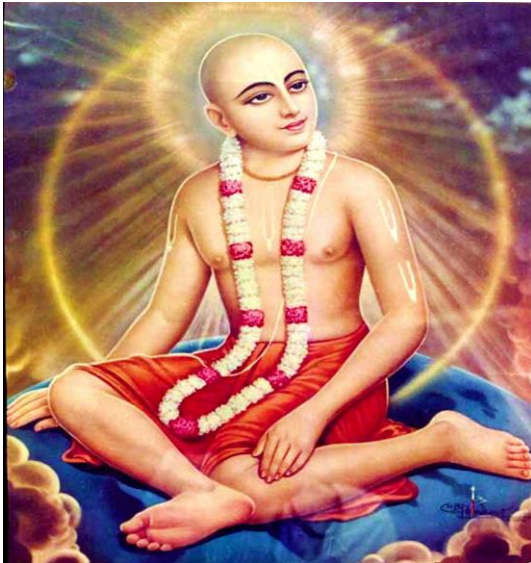
Answer:

- The Bhakti Movement was a movement of reform for the caste system or a kind of dissent against the dominance of Brahmins.
- It originated in eighth-century from south India (now Tamil Nadu and Kerala) and became mainly popular between the 15th & 17th century CE.
- It made religion accessible to downtrodden, which was earlier hegemony of upper caste Brahmins.





SRI CHAITANYA MAHAPRABHU:



Chaitanya Mahaprabhu

Be more humble than a blade of grass, more tolerant than a tree, always offering respect onto others and never expecting any in return

- He laid the foundation of Vaishnavism in Bengal and Eastern India, where till then Shakti cult was dominant. Like other Bhakti saints, Chaitanya too was willing to welcome everyone, irrespective of caste, into the fold.
- He was a Vaishnava saint and social reformer in eastern India (specifically present-day Bangladesh and states of West Bengal, Bihar, Jharkhand, Manipur, Assam, and Odisha) in the 16th century.
- He is believed by followers of Gaudiya Vaishnavism to be the full incarnation of Lord Krishna. Specifically, he worshipped the forms of Radha and Krishna and popularized the chanting of the Hare Krishna maha mantra and is inspiration behind ISKCON movement.
- He also introduced Kirtan style of songs and introduced a new musical instrument called 'Khol' which is similar to a Mridangam, smaller at one end and broader at the another.

REMARKABLE FEATURES:

- They disputed the role of middlemen – priestly class – in meeting the god They said that the path to God lay in devotion and Bhakti to Him and not in any rituals.
- However Role of guru and 'guru-shishya parampara' had important place in Bhakti movement. Where Guru is the one who is capable of guiding the disciple to the right path to god.
- They welcomed the ideas of equality and brotherhood which the Sufi saints also preached. It broke caste and gender barriers.
- They condemned rituals and sacrifices & preached the oneness of god.

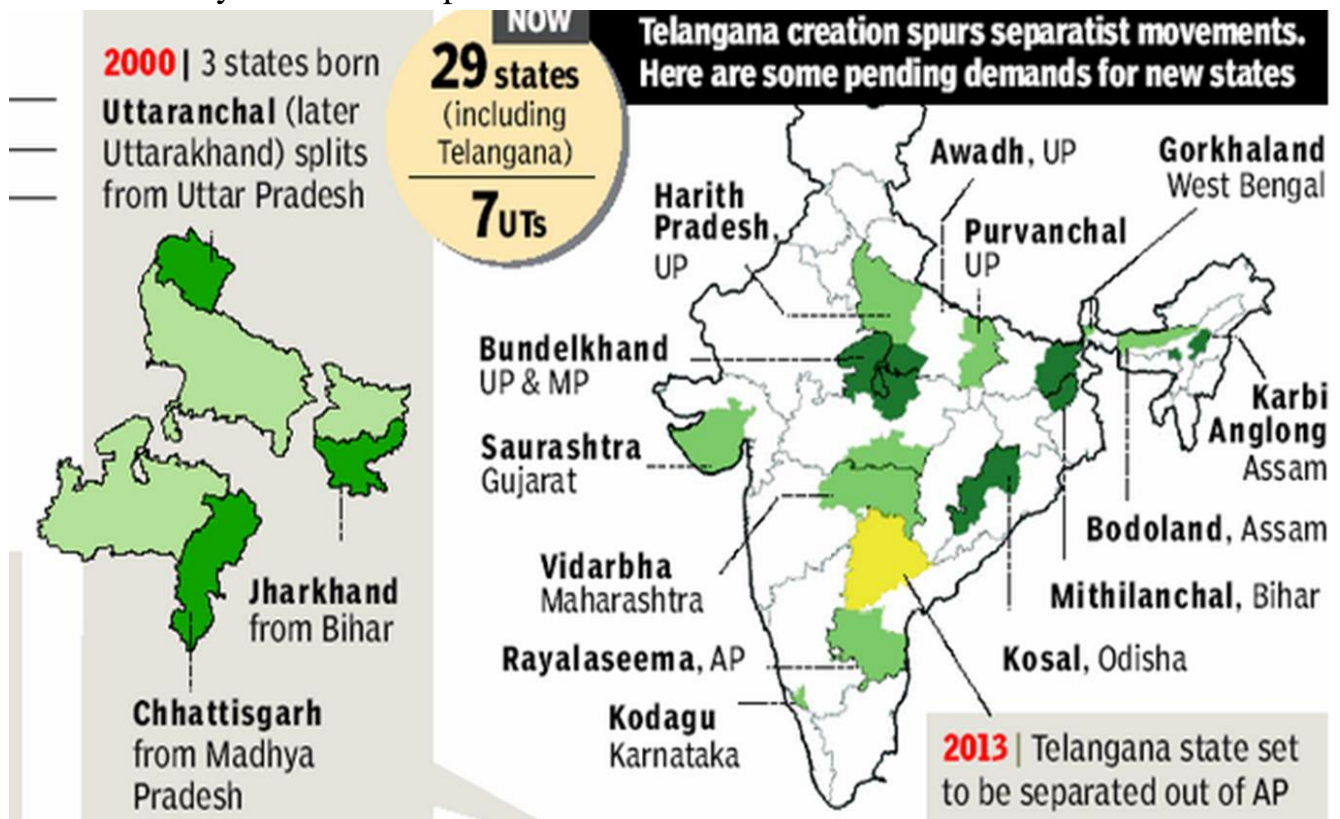


- They abdicated language of the elites – like Sanskrit – and adopted language of masses and devised their own ways of expression like – vachna, doha, prabandha, bhajan, kirtan, burrakatha, haarikatha etc.
- They disregarded caste and encouraged women to join in their religious gatherings. The Bhakti saints did their entire teaching in the local vernacular language to make it comprehensible & understandable to everyone.
- They opposed sati and female infanticide & women were encouraged to join kirtans so they advocated social reforms also.

12) Discuss whether formation of new states in recent times is beneficial or not for the economy of India.

Answer:

- The demand for statehood on the ground of special needs was articulated by leaders in national parties and gained momentum in the late 1990s. The formation of three small States in 2000, Chhattisgarh, Jharkhand, and Uttarakhand nourished hopes that the democracy would be deepened.



- Smaller political units facilitate contact between the government and the governed and enable local populations to imprint their opinions and interests onto the consciousness of their representatives.

IS IT BENEFICIAL FOR THE ECONOMY....?

- Factual analysis shows the better development and efficiency, but all facts doesn't work constant in favour of the new states when compared with the parent states.
- During the tenth five-year plan period,
 - Chhattisgarh averaged 9.2 percent growth annually compared with 4.3 percent by Madhya Pradesh (Now MP is ahead)
 - Jharkhand averaged 11.1 per cent annually compared with 4.7 percent by Bihar (Now Bihar is slight ahead)
 - Uttarakhand achieved 8.8 per cent growth annually compared with 4.6 percent by Uttar Pradesh (Still Uttarakhand is slight ahead)
- Although all these states suffer from chronic, the implementation of the central government's job guarantee scheme (MGNREGA) is doing better in the two smaller states of Chhattisgarh and Uttarakhand, compared to their 'mother' states. But in Bihar, the average days of employment given is more than Jharkhand.
- The two big states of Bihar and UP are severely lagging in school infrastructure - they have just 6 and 7 primary school sections per 1,000 children. Compare that to their daughter states - Jharkhand has 13 and Uttarakhand 17. The MP-Chhattisgarh duo is fairly even on this count.
- But comparatively smaller states compact geographical entities which tend to ensure that there is better democratic governance, as there is greater awareness among the policy makers about the local needs.
- Smaller spatial units having linguistic compatibility and cultural homogeneity also allow for better management, implementation and allocation of public resources in provisioning basic social and economic infrastructure services.
- A relatively homogeneous smaller state allows for easy communicability, enabling marginal social groups to articulate and raise their voices.
- As per the analysis of per capita income, all three smaller States have actually done better than the mother States.

WHAT KIND OF ECONOMIC GROWTH...?

- Chhattisgarh ranks low on Human Development Index rankings, with more malnourished women, underweight children, and illiterate people than the national average. People in the densely populated forests and hills of Dantewada and Bastar, where a majority of the STs live, are the most illiterate. Ironically, Chhattisgarh is a mineral-rich and power-surplus State.

- The incidence of poverty among Scheduled Caste (SC) and Scheduled Tribe (ST) households in Chhattisgarh is much higher than in other social groups in the State and the country.
- The same report tells us that Jharkhand, with vast natural resources, accounted for 70 per cent of the Gross State Domestic Product of Bihar before 2000. Yet it remains one of the most economically backward States of the country. The SC and ST population constitutes around 12 per cent and over 26 per cent of the State's population.
- Poverty figures in these two communities are much higher than corresponding figures at the all-India level. A higher percentage of children of the communities suffer from malnutrition and illiteracy.
- It is not surprising that into the political vacuum created by systemic injustice in both States have stepped the Maoists, with their ideology of a new world geared towards the interests of the poor and the oppressed.
- Uttarakhand falls into a different category because it is inhabited by hill people, many of them belonging to the upper castes. The region came into the limelight when in the 1970s local communities mobilised against transfer of forest resources to commercial companies. In the process, the claims of representative democracy have been replaced by aspirations to political power and distasteful compromises made in pursuit of profit.
- Even a cursory look at how Uttarakhand, Chhattisgarh and Jharkhand have fared will tell us how the mere formation of a smaller State is no guarantee for better lives for those groups for whom these States have been created.
- There are real & robust reasons available in support and also against the formation of new states. – Division of Uttar Pradesh...?
- Think & Conclude: Small Family, Happy Family or Divided Family, No Family?





13) Why indentured labour was taken by the British from India to other colonies? Have they been able to preserve their cultural identity over there?

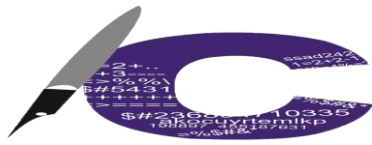
Answer:

- When Britain abolished slavery in its Empire, through Slavery Abolition Act 1833, it included a clause that allowed slavery inside India and enslavement of Indians for colonial markets operated by the EIC.
- Between the period of 1830s and 1917s around 2 million indentured labourers were sent to different European colonies, majority of them were from India with smaller shares from China, South-East Asia & elsewhere.

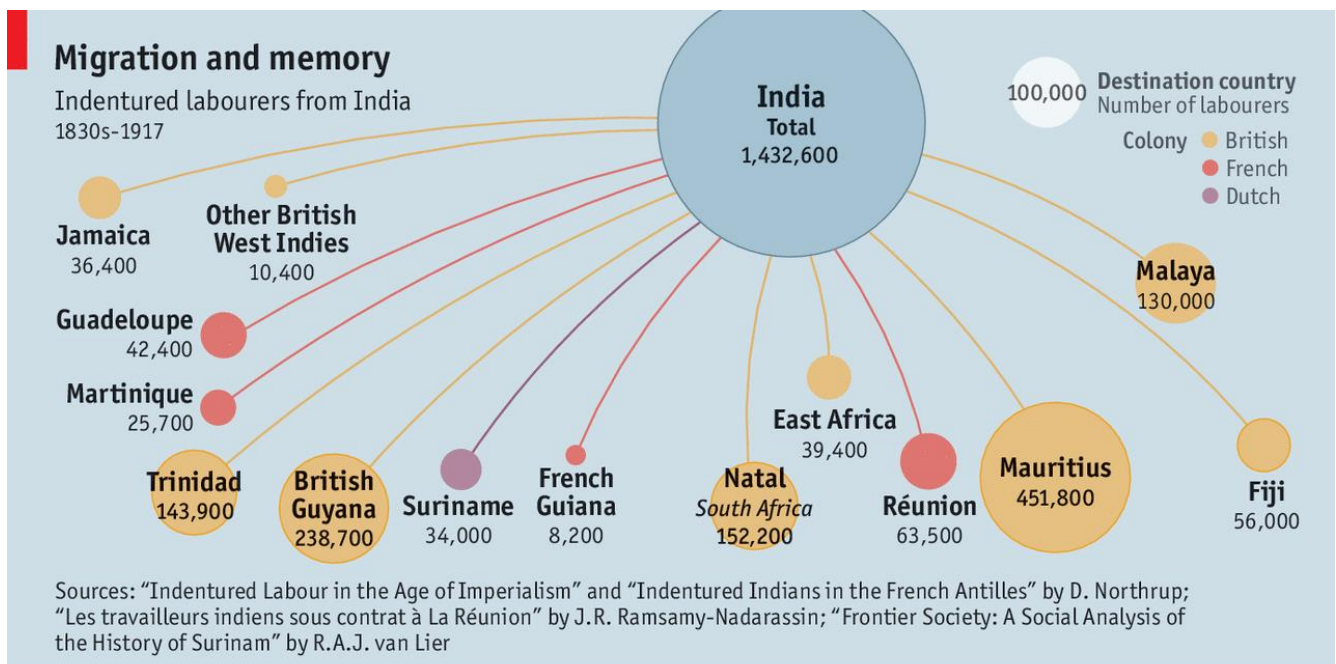
After the abolition of slavery in the British Empire in 1834, many people from India were transported to other areas to overcome labour shortages. This happened in South Africa, on the Fiji Islands and in the Caribbean, e.g. on Trinidad and Tobago. This accounts for the South Asians in the present-day Caribbean.



- Indian indentured labours were hired under contracts which promised return travel to India after they had worked there for five years. Most Indian indentured workers were from the present-day regions of eastern Uttar Pradesh, Bihar, central India and the dry districts of Tamil Nadu.
- Cause of People Getting into Indentured Labour – In the mid-nineteenth century these regions experienced many changes – cottage industries declined, land rents rose, lands were cleared for mines and plantations. All this affected the lives of the poor – they failed to pay their rents, became deeply indebted and were forced to migrate in search of work.



- The main destinations of Indian indentured migrants were the Caribbean islands (mainly Trinidad, Guyana and Surinam), Mauritius and Fiji. Closer home, Tamil migrants went to Ceylon and Malaya.



Economist.com

- Recruitment was done by agents engaged by employers and paid a small commission. Many migrants agreed to take up work hoping to escape poverty or oppression in their home villages. Agents also tempted the prospective migrants by providing false information about final destinations, modes of travel, the nature of the work, and living and working conditions. They went on to work for plantations, in mines, and in road and railway construction projects around the world.

- Often migrants were not even told that they were to embark on a long sea voyage. Sometimes agents even forcibly abducted less willing migrants.
- There were an estimated 8,000,000 or 9,000,000 slaves in India in 1841. In Malabar, about 15% of the population were slaves.
- On arrival at the plantations, labourers found conditions to be different from what they had imagined. Living and working conditions were harsh, and there were few legal rights. But workers discovered their own ways of surviving.

CULTURAL IDENTITY:

- Strangers in strange lands, indentured labourers and their descendants preserved some traditions, from caste practices to recipes. But it was not uniform in all the British colonies.
- Mostly the meeting of a mosaic of people from India, China, Africa and Europe began a process of hybridisation and intercultural frictions and dialogues. This social reality has a major reference for identity opened to otherness and where it represents a humanism of diversity.
- While in “Jamaica” the Church of England was the established. It received funding from the colonial government, and was given responsibility for providing religious instruction to the slaves.
- Whereas in “Fiji” the people of diverse culture, working and eating together had led to an end of the caste system. Furthermore, shortage of females resulted in many marrying outside their caste. Another positive was the development of a new koiné language, known as Fiji Hindi that was formed from different languages and dialects of India. The language is now the mother tongue of majority Fiji Indians who are still living in Fiji & about 40% of the population of Fiji citizens are fully or partially of Indian descent.
- According to a Walk Free Foundation report in 2016, there were 46 million people enslaved worldwide in 2016, there were 18.3 million people in India living in Contemporary slavery. The modern slavery has taken forms, such as bonded labour, child labour, forced marriage, human trafficking & forced begging.

14)The idea solution for depleting ground water resources in India is water harvesting system. How can it be made effective in urban areas?

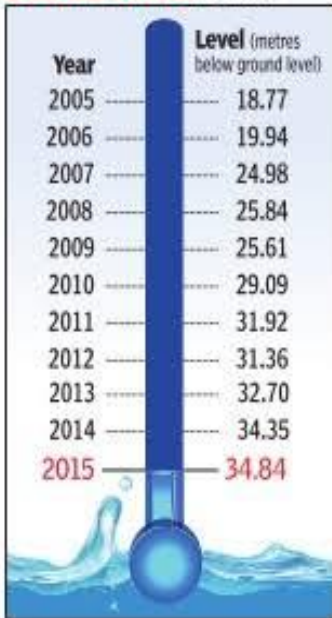
Answer:

- It is a much bigger project than the linking of rivers as it teaches the lesson of cooperation and living within ecological means of a place.



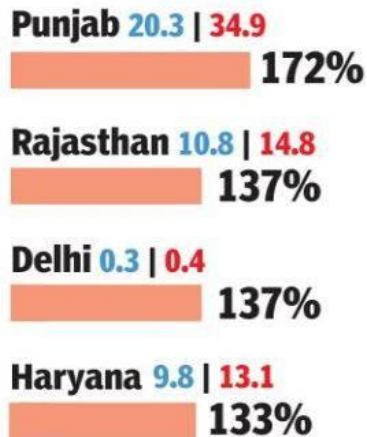
- Building strong equitable communities is to build water resilience. The water harvesting system is like a project linking the sky and the earth.

DEPLETING FAST

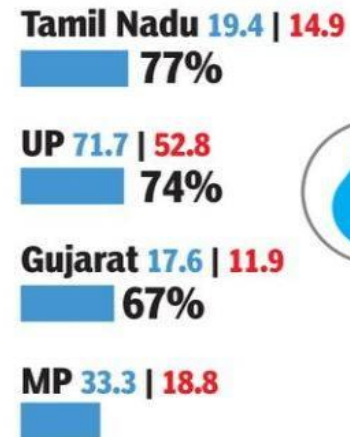


GROUND WATER ON THE DECLINE

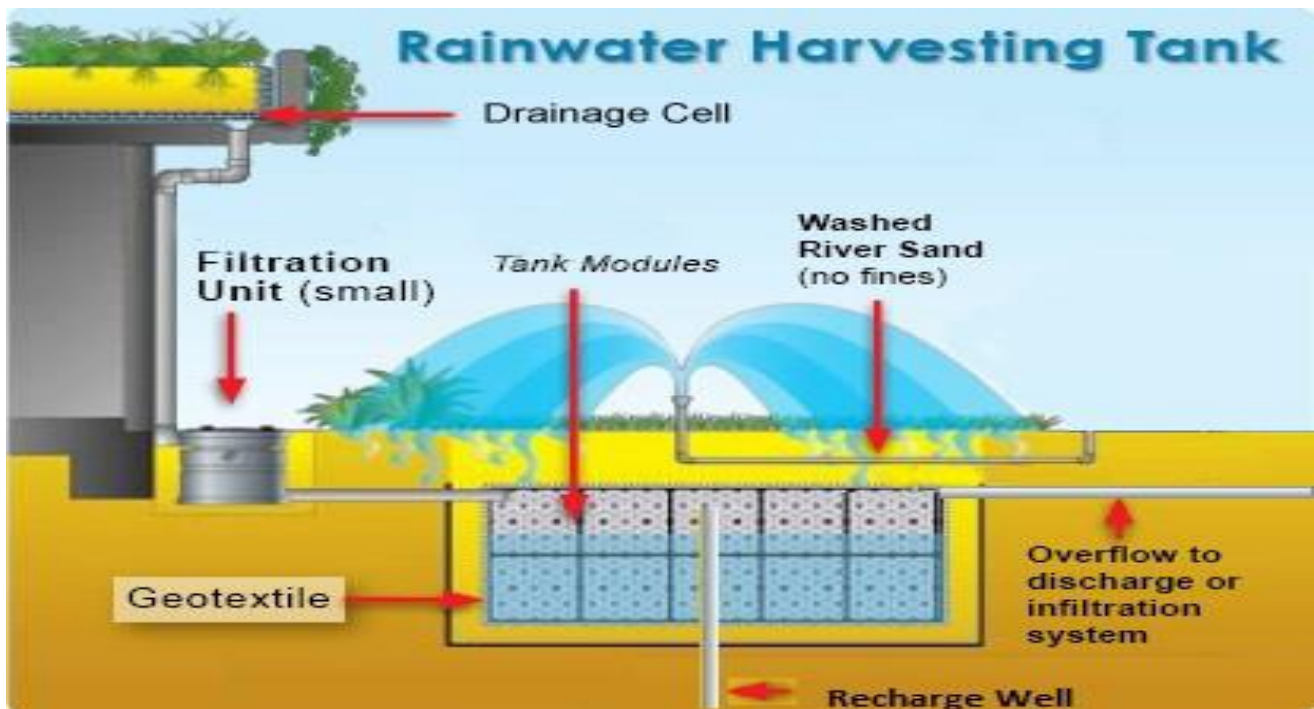
STATES CONSUME MORE THAN RECHARGE



STATUS OF WATER USE IN OTHER STATES



■ Consumption (BCM) ■ Availability (BCM)



WHY WATER HARVESTING SYSTEM? GWD declined 2x in past 10years!

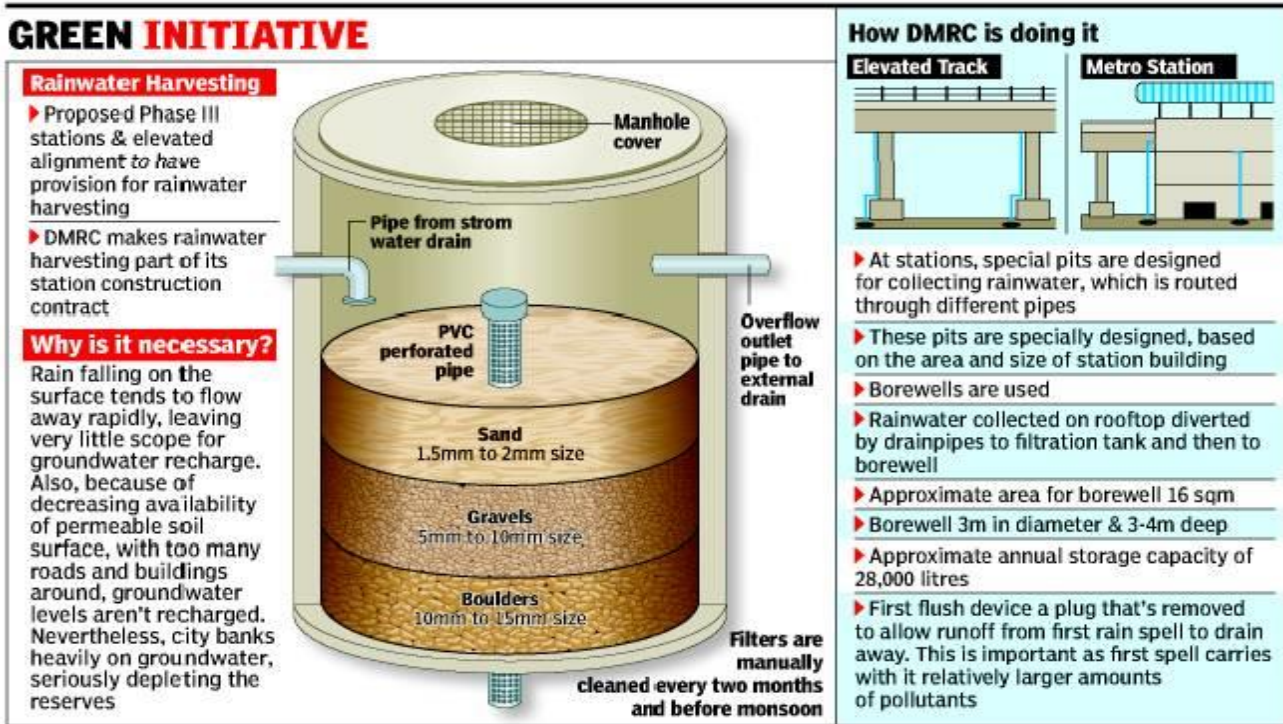
- The rocky earth condition of some region prevents natural percolation of rainwater into the earth, construction of rainwater harvesting structures to enable the recharge the groundwater table.

- Rainwater harvesting is the accumulation and storage of rainwater for reuse on-site, The harvested water can also be used as drinking water, longer-term storage, and for other purposes such as groundwater recharge. Rainwater harvesting is one of the simplest and oldest methods of self- supply of water for households.
- Rainwater harvesting provides the independent water supply during regional water restrictions, and in developed countries, is often used to supplement the main supply. It provides water when a drought occurs, can help mitigate flooding of low-lying areas, and reduces demand on wells which may enable groundwater Advantages levels to be sustained.
- Check dams can also be constructed across the streams to enhance the percolation of surface water into the subsoil strata. Thus, local aquifers can be recharged quickly using the available surface water fully for use in the dry season.

IS IT SUCCESSFUL MODEL?

- In China, Argentina, and Brazil, rooftop rainwater harvesting is used to provide drinking water, domestic water, water for livestock, water for small irrigation, and a way to replenish groundwater levels.
- About 40% of Thailand's rural population utilizes rainwater harvesting.
- Frankfurt Airport has the biggest rainwater harvesting system in Germany. The system helps save approximately 1 million cubic metres of water per year.
- The Tamil Nadu was the first state to make rainwater harvesting compulsory for every building to avoid groundwater depletion. The scheme was launched in 2001 and has been implemented in all rural areas of Tamil Nadu. It gave excellent results within five years, and slowly every state took it as a role model. Since its implementation, Chennai had a 50% rise in water level in five years and the water quality significantly improved.
- In Cities like Bengaluru where significant percentage of surface area of is covered by tar/concrete. Water doesn't have anywhere to go except stormwater drains, and usually, private plots are at a higher level when compared with roads.
- These stormwater drains have issues with respect to clogging and design as well. Which contribute to stagnation.
- Now nearly a lakh properties having installed rainwater harvesting systems, each one is expected to save around two lakh litres of water in the whole year.
- A senior project associate for the World Resources Institute, said stagnation in Bengaluru reduces by 50% if rainwater harvesting principles are strictly followed in the core city.

- In this regard, Bangalore Water Supply and Sewerage Board has initiated and constructed “Rain Water Harvesting Theme Park” in the name of Sir M. Visvesvaraya in 1.2 acres of land situated at Jayanagar.
 - In this park, 26 different type of rainwater harvesting models are demonstrated along with the water conservation tips.

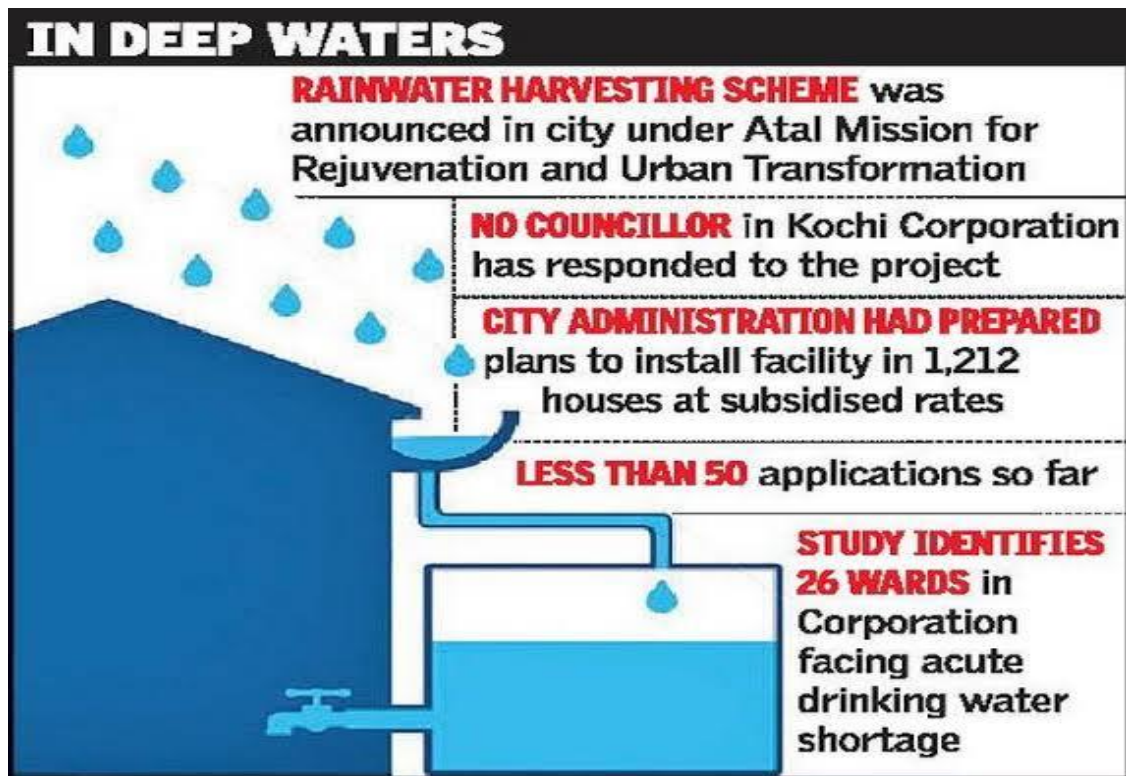


HOW IT CAN BE MADE EFFECTIVE?

- The BWSSB starting levying penalties on properties that have not installed rainwater harvesting systems in 2016, the government made it mandatory for buildings constructed on 30x40 sq.ft. sites. In Pune, rainwater harvesting is compulsory for any new housing society to be registered.
- Domestic consumers face a penalty of 25% on their monthly water bill for the first three months, which will be increased to 50% if they fail to install the system. For commercial buildings, the penalty is 50% for the first three months, following which they will have to pay a penalty that is equivalent to their bill.
- Texas offers a sales tax exemption for the purchase of rainwater harvesting equipment.
- In Support with NGO's: - The city-based NGO, Siruthuli's has constructed over 600 RWH structures with the cooperation of the Coimbatore City Municipal Corporation, Central Ground Water Board, Rotary Clubs of Coimbatore, corporates, individuals and private enterprises.

- These structures efficiently recharge run-off surface water to the underground aquifers to increase the water level and its quality. This has resulted in creating sustainable groundwater table even where there is less rainfall.

KEY FACTS FOR UNDERSTANDING: -



- While rainwater itself is a clean source of water, often better than groundwater or water from rivers or lakes, the process of collection and storage often leaves the water polluted and non-potable.
- Rainwater harvested from roofs can contain human, animal and bird feces, mosses and lichens, windblown dust, particulates from urban pollution, pesticides, and inorganic ions from the sea (Ca, Mg, Na, K, Cl, SO₄), and dissolved gases (CO₂, NO_x, SO_x).
- In such cases Prefiltration must be used to keep the system healthy and ensure that the water entering the tank is free of large sediments.

15) Defining blue revolution, explain the problems and strategies for pisciculture development in India.

Answer:

- Blue Revolution refers to the management of water resources that can steer humanity to achieve drinking water and crop irrigation security.

- The term "blue revolution" also refers to the remarkable emergence of aquaculture as an important and highly productive agricultural activity.
- Blue Revolution is the time of intense growth in the worldwide aquaculture industry from the mid-1960s to present. The aquaculture industry has been growing at an average rate of nine- percent a year. Worldwide aquaculture production has now reached 50 million tons, up from two million in 1950.



- The fish production during 2014-17 was increased to 327.74 lakh tonnes which is an increase of 20.1%.
- Pisciculture: The breeding, rearing, and transplantation of fish by artificial means is called pisciculture, in other words, fish farming.
- It is the principal form of aquaculture which involves raising fish commercially in tanks or enclosures.



- A facility that releases juvenile fish into the wild for recreational fishing or to supplement a species' natural numbers is generally referred to as a fish hatchery. Fish species raised by fish farms include salmon, catfish, tilapia and cod.
- Tilapia is a fish variety adaptable to shallow waterbodies and limited oxygen environment, is emerging as a feasible option for lowland farmers in looking to supplement their income from agriculture.
- Tilapia was found to be suitable for the model because of its fast growth and weight up to 700 gm. Fetching ₹300 a kg, it is more remunerative for farmers.
- The fish is one of the key components of the coconut-based integrated farming system developed by Kerala Agricultural University (KAU) and approved by the Department of Agriculture for popularization among lowland farmers in the State.
- After the fish is harvested, the nutrient rich silt from the channels is used as manure for coconut palms, along with leaf toppings and cow dung generated in the model. "This reduces the reliance on chemical fertilizers".
- The coconut-based model has been profitably maintained on the Nedumcad campus of the IFSRS here for the last three years. One could realise an average yield of 50 kg fish from one cent area. This works out to an income of ₹75,000 from just five cents.
- The Department of Agriculture has earmarked ₹700 crore to popularize integrated farming systems this year.

PROBLEMS FROM & OF PISCICULTURE DEVELOPMENT:



- Nets made of synthetic cord to cover ponds being used for pisciculture in villages of Rohtak district and other parts of the state which have been causing death of a number of birds.
- The village panchayats auction ponds to contractors for fish farming. Many birds - native as well as migratory, get entangled in nets and die.
- The carnivorous species, locally known as the African catfish was introduced in India without official sanction. It's posing threat to local varieties of fish, polluting waterbodies. The government has imposed a ban on farming of African catfish. However, the ban will have little effect unless the existing stocks are destroyed through selective culling.
- Many of the farms use chicken waste as feed, polluting water sources, and the environment.
- Because farm-raised fish are kept in cages, they have the tendency to be fatter with a higher concentration of omega-6 acids. The problem with getting too much of omega-6 acids is that they cause inflammation.
- Studies show that farm-raised Tilapia worsens inflammation in the human body and can lead to heart disease, arthritis, asthma and other serious health problems.
- Due to the adverse impacts of climate change and inadequate practices, the fishermen and the industry are facing some problems.
- Selection of wrong breeds in the wrong area. Shoreline degradation and loss of coral reefs are major problems being faced by fishermen.

- Lack of extension activities, flaws in policy, ad hoc usage of natural resources have seen India slowly slip in the lucrative fisheries and aquaculture industry.
- Fish farming requires the capital investment which not every farmer can afford & due to lack of awareness in farmers they are not using loans and subsidies provided by the government.

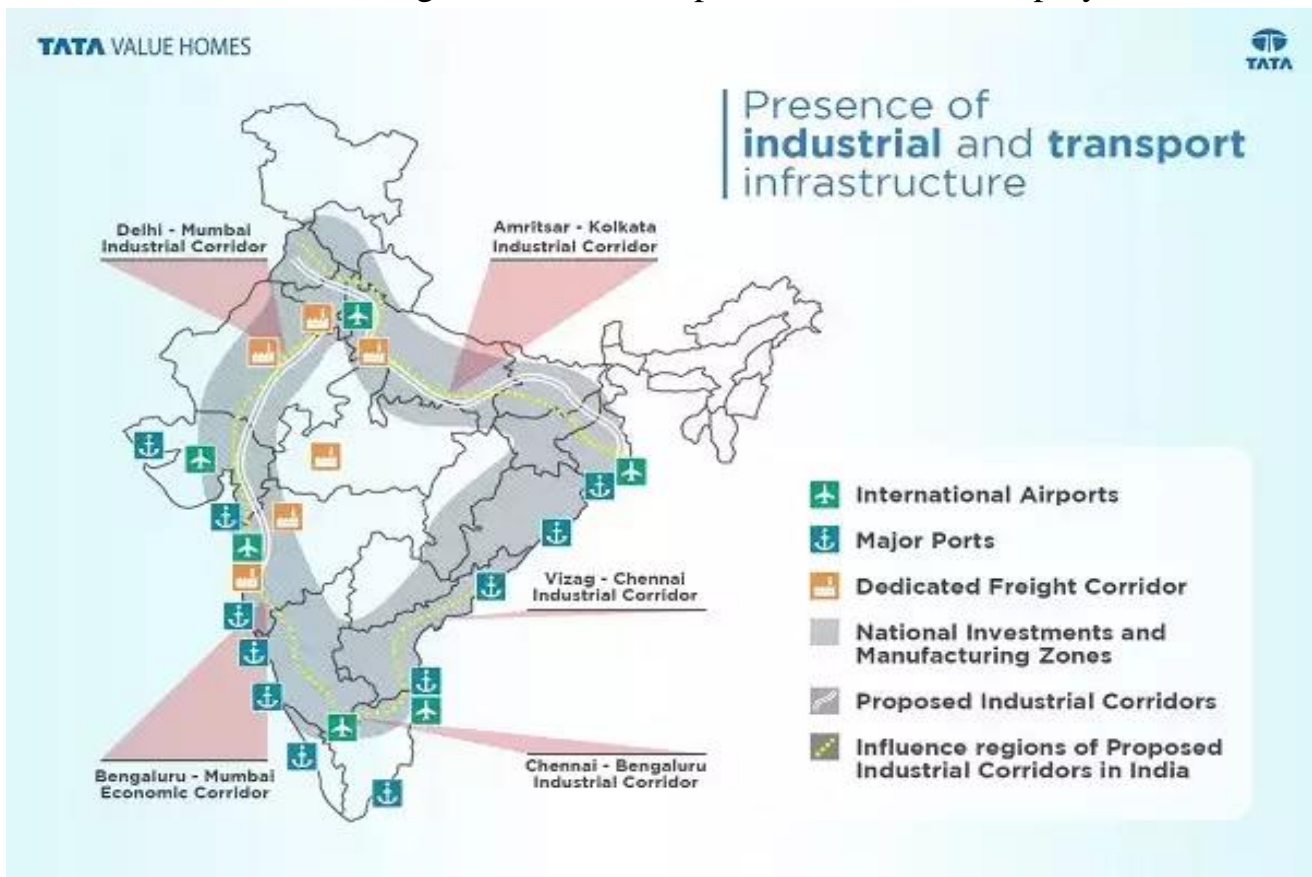


- Pollution and contamination of any chemical toxins may harm or even can kill the fishes.
- Uncontrolled farming activities can create long-lasting damage to the ecosystem, affecting the fishery resources in the vicinity of farms.
- However, CMFRI has taken steps to promote open-sea cage farming across the maritime States.
- Less than five percent of the research is being used in the country.
- Through the lack of applied technology, the production averages three tonnes per hectare, instead of the potential six tonnes per hectare.
- There needs to be a holistic approach that integrated management, policy and technology. Because an eco-friendly Pisciculture can emerge as a feasible option for lowland farmers looking to supplement their income.

16)What is the significance of Industrial Corridors in India? Identifying industrial corridors, explain their main characteristics.

Answer:

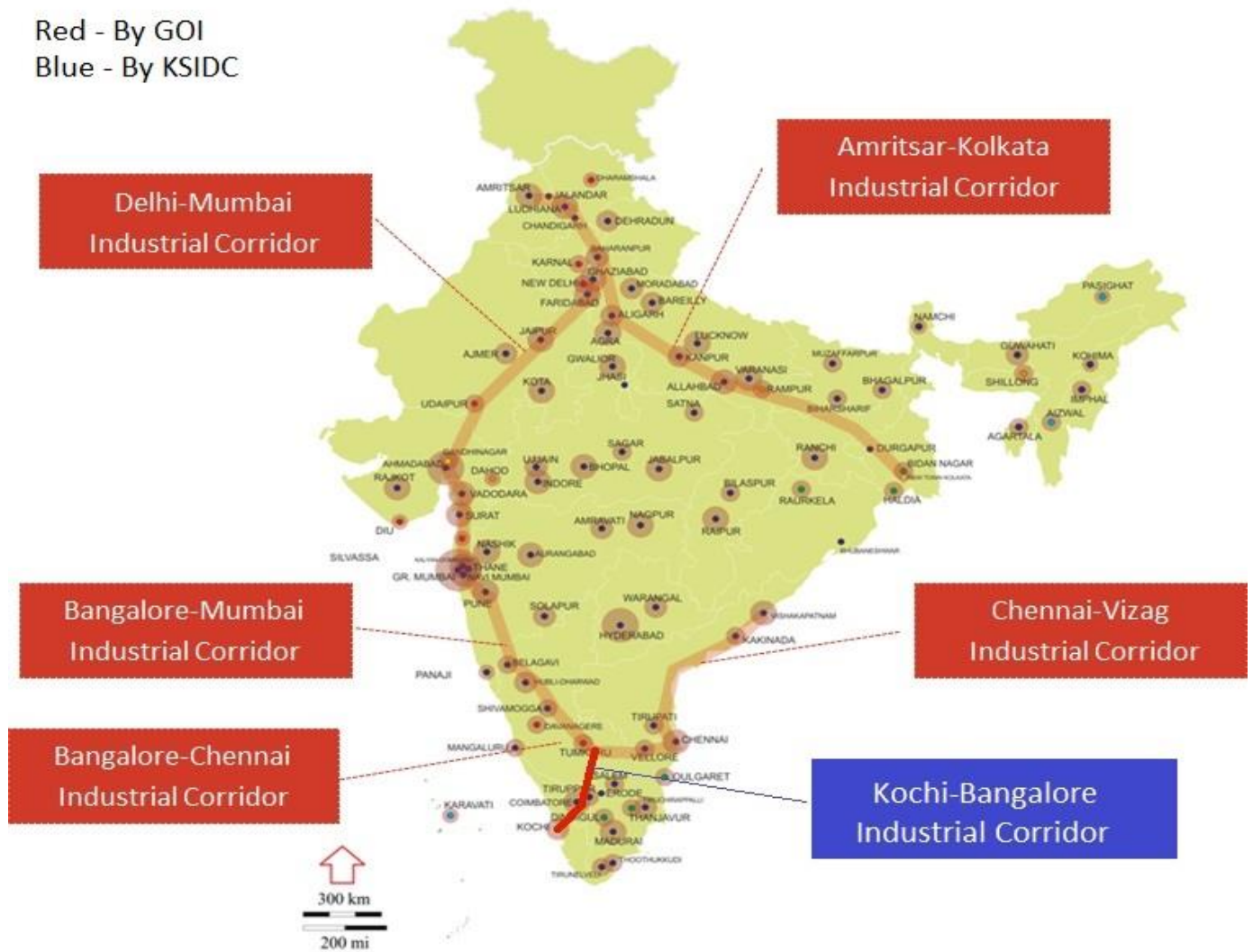
- An industrial corridor is a specific geographical area supported through infrastructure, with the intent to stimulate industrial development. Such corridors are often created in areas that have pre-existing infrastructure, such as ports, highways and railroads. (Whereas Economic corridor is an integrated network of infrastructure which also includes transport agreements & social needs - such as housing, to stimulate overall economic development.)
- The Industrial Corridor proposes establishment of dedicated zone for manufacturing & promoting investments, with the intention to make the country as an economic hub to cater to the demands of vast domestic markets and international markets.
- Thus Development of industrial corridors is a very important policy initiative of the Government for boosting industrial development, income and employment.



- The government of India - to make 44 highway stretches totalling 27,000km to be developed as “industrial corridors” for seamless movement of cargo vehicles, cut delays, deepen economic activities and create jobs.
- One corridor is being made by state of Kerala. To revitalize the industries of the state (competitive advantage), and also to transform the state as a hub of manufacturing activity, through make to India program. The corridor passes through and connect major hubs of economic activities such as manufacturing clusters and ports.



Red - By GOI
Blue - By KSIDC



CHARACTERISTICS OF INDUSTRIAL CORRIDOR:

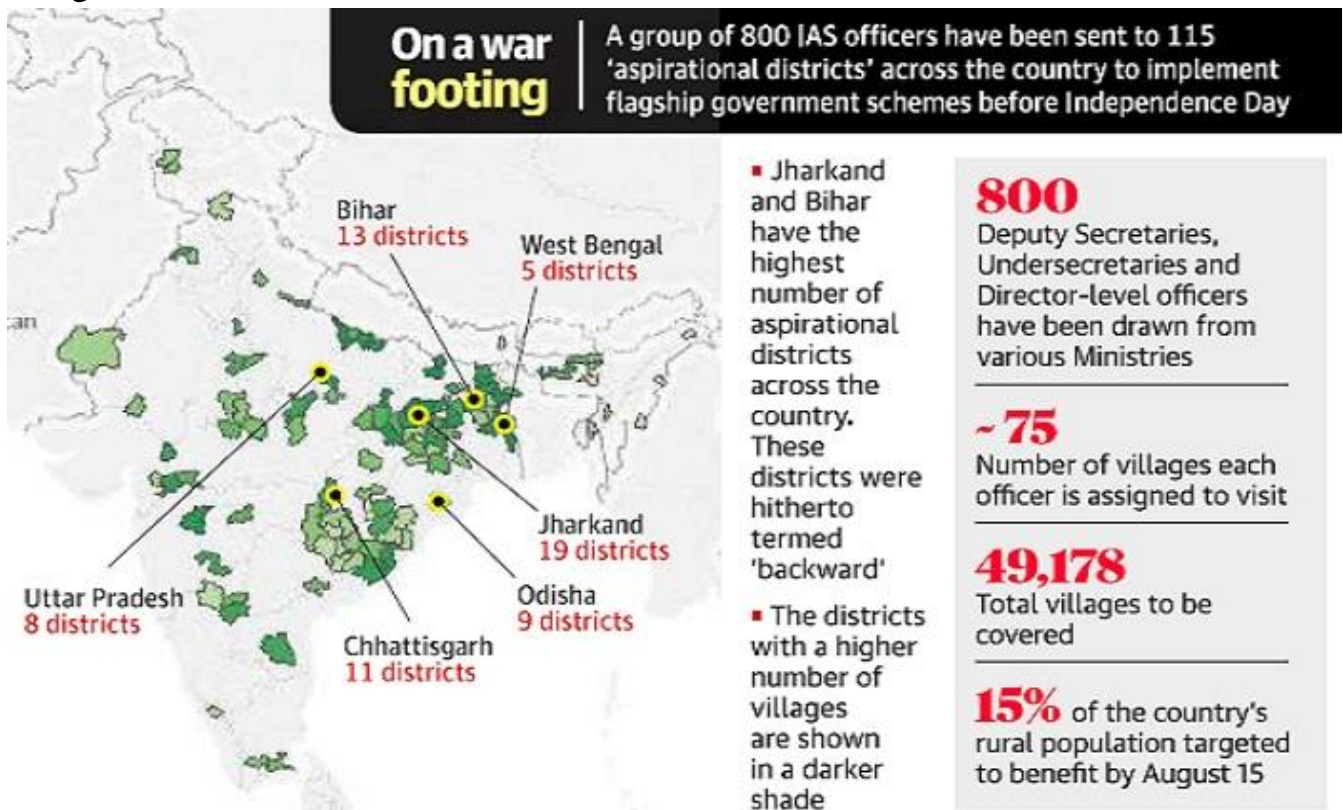
- Industrial corridors constitute world class infrastructure such as high-speed transportation (rail, road) network, ports with state-of-the-art cargo handling equipment, modern airports, special economic regions/ industrial areas, logistic parks/transshipment hubs, knowledge parks focused on feeding industrial needs, complementary infrastructure such as townships/ real estate, and other urban infrastructure along with enabling policy framework.
- Industrial Corridors recognize the inter-dependence of various sectors of the economy and offer effective integration between industry and infrastructure leading to overall economic and social development.
- Industrial corridor provides opportunities for private sector investment in the provision of various infrastructure projects associated with the exploitation industrial opportunity.

- Apart from the development of infrastructure, long-term advantages to business and industry along the corridor include benefits arising from smooth access to the industrial production units, decreased transportation and communications costs, improved delivery time and reduction in inventory cost.
- The strategy of an industrial corridor is thus intended to develop a sound industrial base, served by world-class competitive infrastructure as a prerequisite for attracting investments into export oriented industries and manufacturing.

17) Mention core strategies for the transformation of aspirational districts in India and explain the nature of convergence, collaboration and competition for its success.

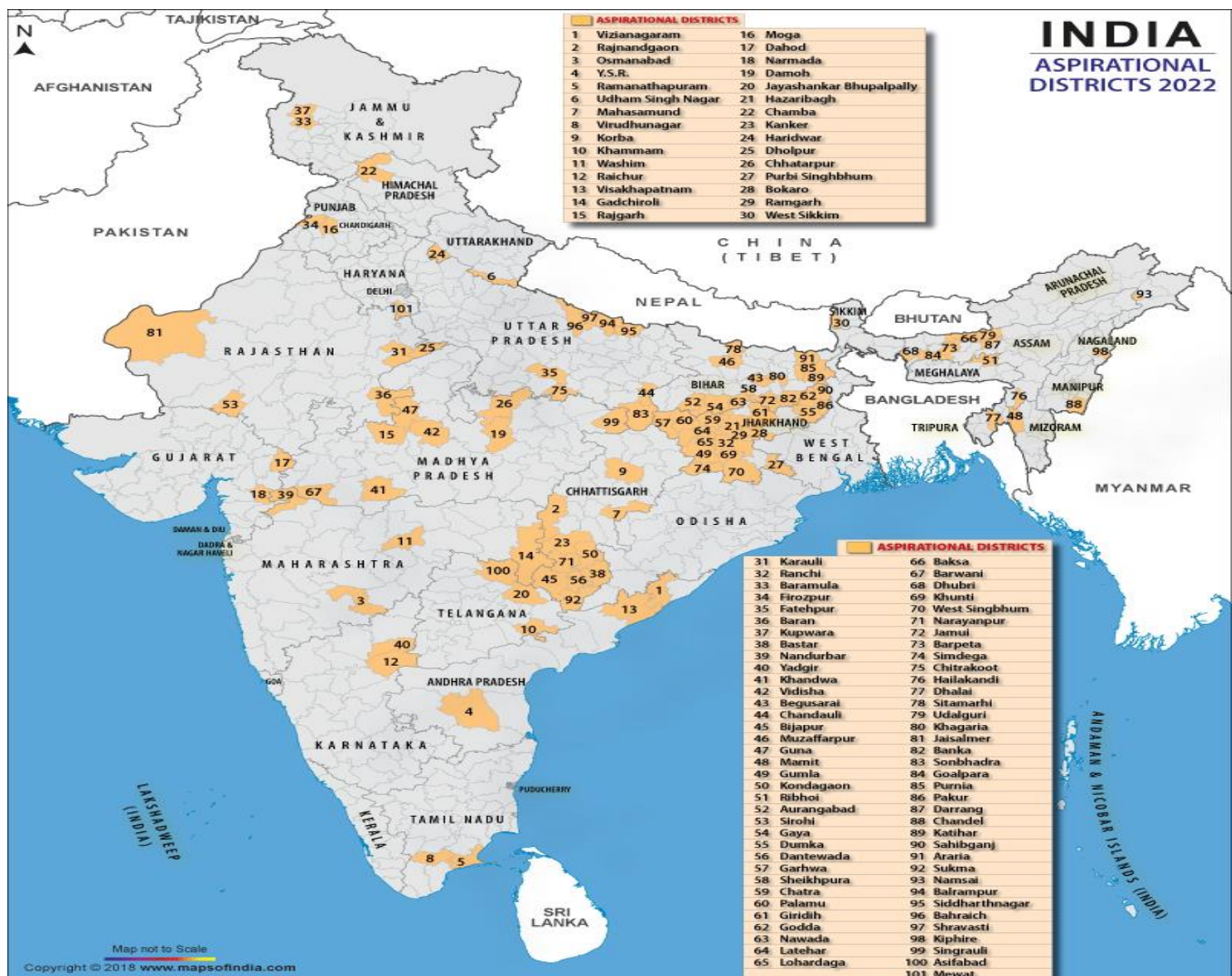
Answer:

- The 'Transformation of Aspirational Districts' programme aims to quickly and effectively transform some of the most underdeveloped districts of the country.
- The Union Government had selected 115 backward (aspirational) districts for rapid transformation by 2022 in line with Government's vision to create 'New India'.
- NITI Aayog had selected these districts on six socio-economic parameters, pertaining to health and nutrition, education, financial inclusion and skill development, agriculture and water resources and basic infrastructure.





- For Achieving success in this programme it has been managed in three tiers of government, the Centre, States and district administrations.
- Each district is assigned a prabhari (in-charge) officer from the Centre (of additional secretary or joint secretary rank) and a prabhari officer from the State (of the rank of Secretary to State government) who will work in cooperation with the district administration. It is necessary for the Centre and States to be involved because not all decisions can be taken at the level of district.
- The serious attention has been given to the collection of quality data on a real-time basis. Too often in India, data collection is delayed or lacking in quality which ends up leading to policymakers shooting in the dark. With continuously updated data dashboards, those running the programme on the ground can alter strategies after accurate feedback.
- For this government will leverage Public-Private Partnerships (PPPs), aided by technology to bring radical transformation of these aspirational districts.



CONVERGENCE, COMPETITION & COLLABORATION:

- There is no financial package or large allocation of funds to this programme. The intent is to leverage the resources of the several government programmes that already exist but are not always used efficiently.
- The scheme is designed to ensure outcomes through competition and not by allocating additional funds. The scheme is more a facilitator - and what the aspiring districts need to do is utilise the already available funds.
- With the thinking that the government doesn't always need to spend more to achieve outcomes but instead to spend better. Many schemes of the Centre have flexible spending components which permit autonomy at the level of local governments but these are seldom used in practice due to controlling Central and State machineries.
- The NITI Aayog has launched the baseline ranking for the Aspirational Districts based on published data of 49 indicators (81 data points) across five developmental areas of Health and Nutrition, Education, Agriculture and Water Resources, Financial Inclusion and Skill Development, and Basic Infrastructure.
- After several rounds of consultations with various stakeholders, 49 key performance indicators have been chosen to measure progress of the districts. Districts are prodded and encouraged to first catch-up with the best district within their state, and subsequently aspire to become one of the best in the country, by competing with, and learning from others in the spirit of competitive & cooperative federalism.
- Weightage for Ranking: - Health and Nutrition (30%), Education (30%), Agriculture & Water resources (20%), Financial inclusion & Skill Development (10%), Basic Infrastructure (10%).
- The districts will be ranked based on progress made on a real-time basis. The dashboard will be open to the public to monitor the progress of the Aspirational Districts.
- District Information Officers underwent training on March in 2018 on how to enter data to the dashboard and generate MIS (Management Information System) reports.
- Districts can learn from each other's experiences using the "Best Practices" document that NITI Aayog has prepared and circulated to the district collectors. The ranking is a dynamic exercise with scope for the worst performers to move up the ladder in a short span of time.
- There are number of private trusts are being roped in, for which the government is paying nothing. Piramal Foundation, for example, is engaging 625 executives in 25 districts and Tata Trusts is deploying 840 enumerators in 84 districts.

18) “Women’s movement in India has not addressed the issues of women of lower social strata”. Substantiate your view.

Answer:

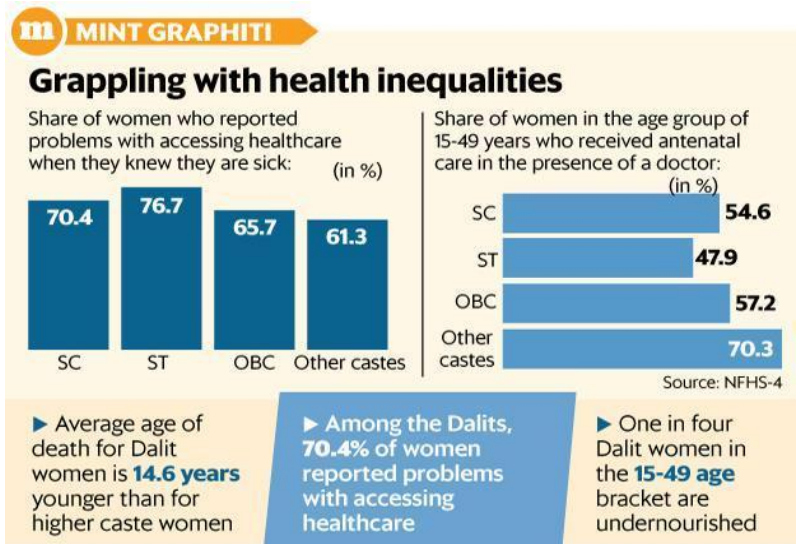
- Social stratification is a type of social division, based upon the social status, wealth, occupation and income. Such stratification is the relative social position of a person within a social group, category, geographic region, or social unit.
 - (i) the upper class (ii) the middle class and (iii) the lower class

WOMEN’S MOVEMENT.....?

- i. Bengal Regulation Act XXI 1795 - Declared Female Infanticide as Illegal
 - ii. Bengal Sati Regulation Act 1829 - Practice of Sati or Immolation of a Widow Illegal
 - iii. Remarriage Act 1856 – Legalised Remarriage of a Hindu Window
 - iv. Civil Marriage Act 1872 - Legalized Intercaste Marriage, Female Minimum Age 14yrs
 - v. Immoral Traffic Prevention Act 1956 - Commercial Exploitation of a Women or Child Became an Offence
 - vi. Sati (Prevention) Act 1987 – More Effective Prevention of The Commission of Sati
 - vii. Amendment Criminal Act 1983 - Domestic Violence & Rape as Punishable Offence.
 - viii. Special Marriage Act 1954 - Minimum Age For Males 21 yrs & For Females 18 yrs
 - ix. Hindu Succession Act 1956 - Equal Share to Daughter From The Property of Father, A Widow Has Right to Inherit Husband’s Property.
 - x. Immoral Traffic Prevention Act 1986, Dowry Prohibition Act 1961, Maternity Benefit Act 1961, Medical Termination of Pregnancy Act 1971, Equal Remuneration Act 1976, Indecent Representation of Women (Prohibition) Act 1986, NCW Act 1990, Domestic Violence Act 2005, Prohibition of Child Marriage Act 2006, Criminal Law (Amendment) Act 2013, Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013.
 - xi. General labour legislations like Factories Act, Mines Act, Plantation Act - All contain special provisions relating to women such as
 - a. provisioning for separate toilets, bathing facilities and crèches
 - b. regulation of work hours
 - c. prohibition of employment of women in hazardous occupations and night work
- These movements and laws are less effective in the lower strata as education plays a major role in emancipation of these rules into reality. Although equal rights are given to women, but such level of equality is not being practiced by the society.

WOMEN OF LOWER SOCIAL STRATA: STATUS & PROBLEMS....?

- The report from UN Women, titled 'Turning Promises into Action' pointed out that data shows a Dalit woman on average dies 14.6 years younger than a higher caste woman. Which could be due to factors like poor access to sanitation facilities, inadequate water supply and healthcare.
- A crucial part of the report illustrates the compounding effect of wealth and location in widening gender gap. Based on Demographic and Health Surveys data, in India, a 20 to 24-year-old woman from a poor rural household is over five times as likely to be married before 18 and 5.8 times as likely to become an adolescent mother as one from a rich urban household.

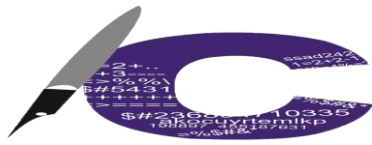


- Same way for education, lower class women are over 20 times as likely to have never attended school as compared to urban counterpart. At least 80 per cent of the women in the poorest 20 per cent in the country are illiterate,
- The literacy rate is lower for women compared to men: the literacy rate is 60.6% for females, while for males it is 81.3%. - 2011 Census.
- Out of the 100 girls that enrol in the first year of school, only 42 reach class V. Among Scheduled Castes and Scheduled Tribes, many of those who live below poverty line. only 19 of the 100 girls reach class V.
- Out of about 500mn million workers in India (male, female), around 94% of workers are in the unorganized sector. Despite the equal remuneration Act 1976, women are paid lower wages, occupy lower skilled jobs, have less access to skill training and promotion. Gender pay gap as women earn 62% of what their male colleagues earn for performing same work.

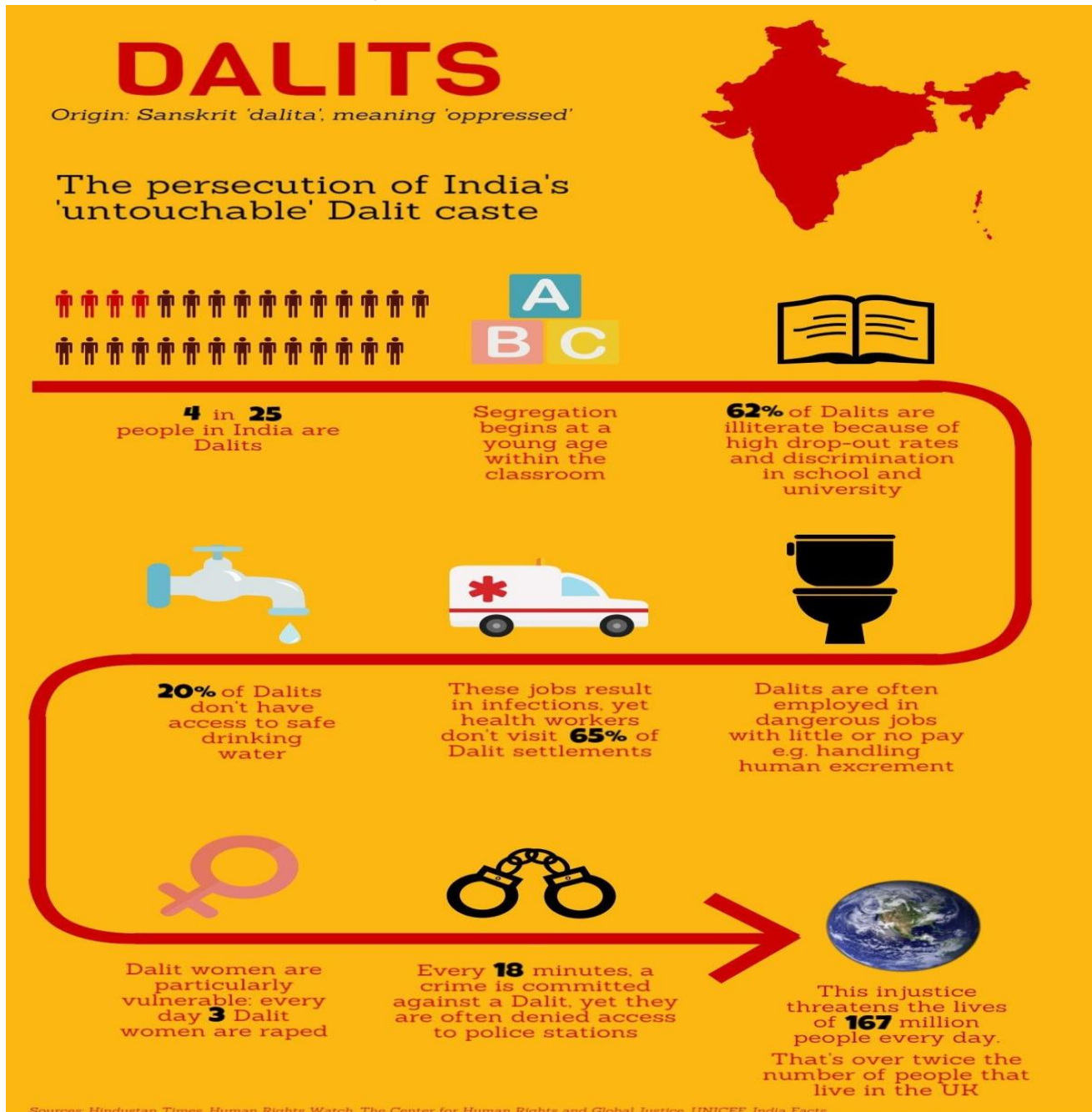
- Manual scavenging: more than 90% of scavengers are lower caste women and it is the worst form of caste discrimination and occupational segregation.
- Murders of women accused of witchcraft still occur in India. Poor women, widows, and women from lower castes are most at risk of such killings.
- Girls are vulnerable to being forced into marriage at young age. In India Total 1,55,09,000 women aged 20-24 years old were married before they were 18 as per UNICEF Report 2017.
- Patriarchal values still have high regard in our society. 70% of rural land is owned by men and customary laws are being practiced in rural areas.
- More than 65% of lower caste men believe women should tolerate violence in order to keep the family together, and women sometimes deserve to be beaten.
- In spite of the presence of mechanisms & laws for women's rights, 36% Indian Companies & 25% of MNC's are not complaint with sexual harassment act as per FICCI-EY Report.
- Self-interested nature of authority & public: Discouraging the filing of Complaints of Women Violence by Society or authority.
- In India, the male-female sex ratio is skewed dramatically in favour of males, the chief reason being the high number of females who die before reaching adulthood. Almost half of adolescent girls are chronically malnourished. In addition, poor nutrition during pregnancy often leads to birth complications.
- The maternal mortality in India is the 56th highest in the world. 42% of births in the country are supervised in Medical Institution. Women, particularly in rural areas, do not have access to safe and self-controlled methods of contraception.
- A large number of women destitute or victims of rape who are disowned by family fall prey to prostitution forcibly. There are no governmental programs to alleviate the problem of prostitution.

WAY FORWARD:

- Robust implementation of present framework or available government policies
- Creating Awareness about domestic violence, antidowry, child education, female infanticide related laws & support available.
- Ensuring last mile Legal security and instant grievance redressal - One Stop Crisis Centres, Sakhi – Supporting women led SHGs
- Strict implementation of Justice Verma Committee recommendations to prevent violence against women.
- Quick action plans or policies for improving poor literacy rates, high mortality rates, life expectancy & discrimination faced by women of lower social strata.



- ❖ A lower caste woman from a village in Gujarat's Botad district have alleged they were denied entry inside a Lord Shiva temple by villagers – 2018.
- ❖ A temple and ashram in Uttar Pradesh's Hamirpur district were "purified" and the idols cleansed with Gangajal after a lower caste woman MLA from the BJP visited the premises. The idols in the temple were sent all the way to Allahabad for "purification" with the waters of the Sangam – 2018.



- ❖ The conviction rate for crimes against Scheduled Castes is an abysmal 25.7%; conviction rates for cases of rape against Dalit women stand at 29%, according to the latest data available in the annual report of the Ministry of Home Affairs for 2017-18.

**19)“Globalization is generally said to promote cultural homogenization but due to these cultural specificities appear to be strengthened in the Indian Society”.
Elucidate.**

Answer:

- Cultural Homogenization is a feature of cultural globalisation which result in the breakdown of cultural barriers and the global assimilation of a single culture. It is considered as the process by which local cultures are transformed or influenced by a outside culture.
- The use of modern technology and aggressive expansion of network by the global companies is sweeping away cultural boundaries and facilitating the emergence of global culture.



- Most of the time, homogenization is viewed negatively, as it leads to the "reduction in culture diversity." However Indian history proves our cultural pluralism and inclusiveness. We have been a people absorbing from all cultures. Indian culture has been the unique synergy of multi-cultural identities. Hence it has no much fears for India, as we have been cultural ambassadors who have conquered the world.
- Be it Buddhism or Hinduism which went to South East Asian countries, our culture has been a harmony of many cultural strains. Even today there are examples like, a Jagannath temple in Nigeria, where Nigerian priests perform the services in dhotis.
- The Indian society is segmented in communities which enjoy ‘enormous cultural autonomy’. This provides colossal cultural resilience to communities in India to filter the effect of globalization through refractory and prismatic adaptation.

- That is why India's core values have never changed despite given shelter to divergent religion of the world and accommodating them within its civilization. Sometimes India comes under their influence but many times they adopt the culture of India as if their own and that gives birth to a hybrid culture.
- Ms. Swaraj also said the recent adoption of the International Day of Yoga by the United Nations, with a record 177 countries co-sponsoring, showed the global appeal of India's soft power. She added "We are living in an era in which the cultural heritage of many societies is under threat, from war, from social and economic upheaval, and the forces of globalisation and cultural homogenisation".
 - The success and prosperity of the diaspora is our asset, commending the diaspora for having kept the spirit of India alive in their adopted countries.
 - The Indian Diaspora had not only become strong, but it triggered a flow of funds and labour force transcending geographical boundaries.
 - Which has made a huge positive impact on the economy of India.
(The total remittance transfer from developed to developing nations in 2010 has been 300 billion USD and India alone accounts for Rs. 55 billion.)
- The homogenisation of the product is the first step in a globalised economy for maximisation of profits by the multinational corporations.
- In last 5 decades the number of students studying in a foreign country increased more than 10 times. Various Student exchange programs are intended to increase the participant's understanding and tolerance of other cultures, as well as improving their language skills and broadening their social horizons.
- It has made people more rational & aware about the caste system and LGBT community. – Increased Acceptance & Tolerance.
- The circulation of cultures enables individuals to partake in extended social relations that cross national and regional borders. It involves the formation of shared norms and knowledge with which people associate their individual & collective cultural identities Which brings increasing sameness among different populations and cultures.

20) "Communalism arises either due to power struggle or relative deprivation".

Argue by giving suitable illustrations.

Answer:

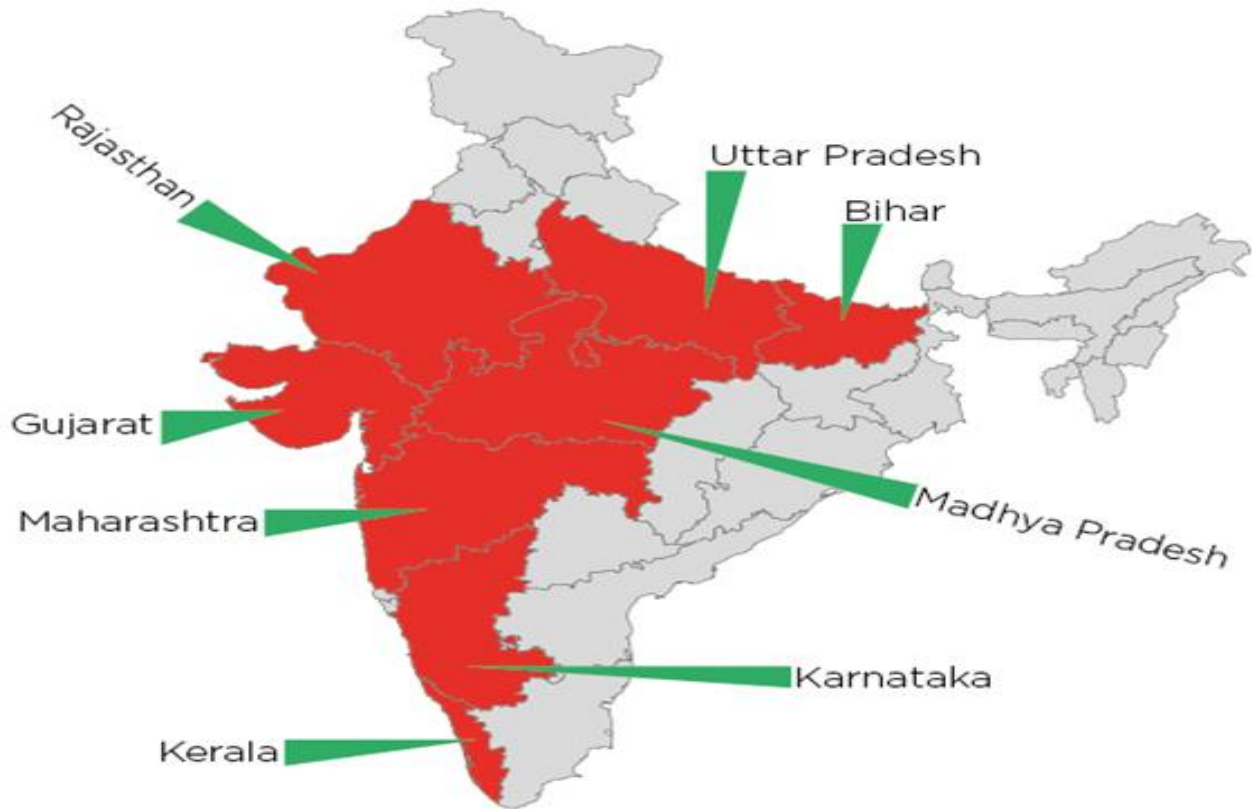
- Communalism: Struggle for resources - belief that interest of one community is being served or against the interest of other politicisation of issues - interest to transfer economic strength into political power.

- The Concept of Communalism was constructed by the British colonial authorities and it wrestled to manage violence between religious, ethnic and disparate groups in its colonies, particularly Africa and South Asia during 20th century. But now Communalism is not unique to South Asia Only. It is found in Europe, America, Asia, Africa and Australia.
- There was no such sense of communalism in India before 1857, Since Conflict between Hindus and Muslims or any other communities were economic in nature.
- Mainly after establishment of Congress in 1885, British misguided & influenced popular leaders like Syed Ahmed Khan and Raja Shiva Prasad to create a rift between people and Congress. They started believing that Muslim's share in administration is hogged by Hindu majority and they launched a campaign to get their rightful place.
- All India Muslim League started supporting the partition of Bengal, opposed the Swadeshi Movement, and demanded special safeguards for its community and a separate electorate of Muslims. This led to communal differences between Hindus and Muslims.
- The Partition of Bengal 1905, the most inglorious attempt of British to stoke the communal fire succeeded. Communalism in India was largely influenced as a result of divide and rule policy of the British. Communalism was a channel for providing service to colonialism and the land officials. British authorities supported communal feelings and divided Indian society for their authoritative ruling.
- Which was again boosted by introducing Separate Electorates in 1909 through Morley-Minto reforms, an instrument that deepened the Hindu-Muslim hostility.
- Lord Minto came to be called as 'Father of Communal Electorate' and Creation of separate electorate is considered as one of the biggest reason in the history which has ultimately led to extreme communalism in the country.
- After the decline of the Non-Cooperation -Khilafat movement, a large section of Muslims felt separated from the Congress. Because of separate electorate from 1920s the Congress also became more associated with Hindu religious nationalist groups like the Hindu Mahasabha. Which further provoked Hindu-Muslim communal clashes and riots in various cities.
- Again in 1932 The Communal Award was given by the British Prime Minister Ramsay McDonald to grant separate electorates to minority communities in India, included Muslims, Sikhs, and Dalits.
- (In Round Table Discussions - separate electorate was demanded – by Muslim Leaders, Ambedkar and other minorities)

- Jinnah was called from London to lead Muslim League in 1935, but despite that it secured only around 100 seats out of the allotted 480 seats, in the elections of 1937. This failure left them with no choice but to resort to communalism.
- Again, Elections of Constituent Assembly in 1946 resulted in huge Congress majority which Jinnah termed as 'Brute Majority'. This further stoked Muslim League's apprehensions of Congress dominance & finally it led to demand for separate nation but was rejected by Congress.
- The rejection of cabinet mission plan combined with Constituent Assembly results led to a resurgence of confrontational politics beginning with the Muslim League's call for general strike known as 'Direct action day' and they called for - 'Lekar Rahenge Pakistan, Ladkar Lenge Pakistan'. This led to confrontation on the day and subsequent communal riots and Bihar killings.
- The failure of the Cabinet Mission was followed by the collapse of the Interim Government and also in the end of 1946 communal violence increased in the country and the British feared that India would settle for a civil war. In such a tumultuous situation, Lord Mountbatten replaced Lord Wavell as Viceroy of India in 1947.
- The actual division between the two new dominions of India and Pakistan was accomplished according to the 3rd June Plan or Mountbatten Plan.
- Early challenges included administrative and physical integration of nation & communal harmony. Then immediate after independence it was rehabilitation of refugees migrated from Pakistan & communist insurgency.
- Even after independence India signed 'Nehru Liaquat Pact' with the Pakistan (1950) to prevent communal killings of Hindus in east Pakistan and Muslims in West Bengal. Communal riots were controlled, but not communalism as an ideology.



- Due to such course of history, again in 1980s Punjab was influenced by separatist movement which was grossly communal in nature. Even after independence, allegations of discrimination were made by the Sikh leaders on national leadership. Which lead to Indira Gandhi's assassination and gave birth to stoked communal riots killing thousands of Sikhs in Delhi and other parts of India.



Only 8 states contribute to around 85% of all the communal incidents in the country...?

- It can be said that India was inherited with communalism! Even in recent time its roots are on the same line of "Divide & Rule" Policy which has culminated an ideology which propagates that interests of a region are not in harmony with national interests or interests of other regions. Which leads to hostility Into participation and communalization of Indian society.

WAY FORWARD:

- Communal Violence (Prevention, Control and Rehabilitation of Victims) Bill 2005 and Communal Violence Bill 2011?
- Leaders (Communal) Are Fighting Not For The Loaves And Fishes, But Fighting Like Proverbial Dog, Not For The Bone But For The Shadow. - M.G Gandhi
- Communalism can be dominated by promoting cognition which can create compatibility and respect between people of different religions and faith.

Visit Now: Chahalacademy.com



CHAHAL ACADEMY  **98215-53677**
72038-21227

No.1 UPSC Coaching in India  Search it now

IAS IPS IRS IFS - UPSC

"Where Teaching is Passion Much More Than Profession"

NEW DELHI | AHMEDABAD | VADODARA | SURAT | ANAND

 chahalacademy@gmail.com

 www.chahalacademy.com



**57/12, 3rd Floor, Above Kumar Book Centre,
Bada Bazar, Old Rajender Nagar, New Delhi - 110060.**

